

ELECTRONIC *Entertainment*

SEPTEMBER 1983
\$2.50

AN INSIDE LOOK:
THE DRAGON'S LAIR!
DO YOU DARE ENTER?

PRODUCT REVIEW:
BURGERTIME Handheld!

SOFTWARE REVIEW:
Tutankham
Dreadnaught Factor
Math Fun
Solar Fox
Ice Trek

BOOK REVIEW:
How to Cope
With Computers!
Intro to
Computer
Animation!

So real it's like being there!

MORE!
MORE!
MORE!



Facts, Figures, Data

NEWS & PRODUCTS: Games, Computers, Software, Hardware, Events

IMPORTANT NOTICE

YOU RECEIVED YOUR LAST ISSUE OF *ARCADE* MAGAZINE LAST MONTH!

Surprised? You shouldn't be—we warned you!

The magazine that was *Arcade* has not gone underground—it's undergone a name change. So it's goodbye, *Arcade*! Hello, *Electronic Entertainment*!

Now we have a name we've made for ourselves! A name that proves what our readers already know—whenever the word is out, it's in our magazine!

Arcade Magazine has been dropped as the title because we felt it was too small to fit the vision, too snug to fit the future. From now on we have a name for exactly what we are: *Electronic Entertainment*!

That's why we say your last copy of *Arcade Magazine* arrived last month.

Welcome *Electronic Entertainment* into your home, office and game room, now!

Our editorial content has not changed. Our exhaustive coverage of new products remains the same. Only the name has been changed, to protect our ideals.

Remember! What was *Arcade* yesterday, is *Electronic Entertainment* today! A great *Arcade* by any other name is still a terrific magazine!

Electronic Entertainment! Ready when you are!

**ELECTRONIC ENTERTAINMENT
MEAD PUBLISHING CORPORATION
21176 SOUTH ALAMEDA STREET
LONG BEACH, CALIFORNIA 90810**

ELECTRONIC ENTERTAINMENT

Volume 2, Number 9
September 1983

Publisher
Daniel R. Mead

Associate Publisher
Nora L. Mead

Editor
Sue Boyce

Subscription Manager
Sandra L. Lujan

Art Director
Francis Taylor

Photographic Director
David Neil

Advertising Sales Director
Carolyn Wentworth

Send Correspondence To
Electronic Entertainment Magazine
Mead Publishing Corporation
21176 South Alameda Street
Long Beach, California 90810

Telephone
Editorial: (213) 549-2376
Subscriptions: (213) 549-0730

Electronic Entertainment magazine (ISSN 0736-0304, USPS 697-910) is published monthly by Mead Publishing Corporation, 21176 South Alameda Street, Long Beach, CA 90810. Subscription Rates: \$25.00 per year in the United States of America or \$40.00 per year (total amount payable in U.S. funds only) in all other countries for surface mail delivery. Airmail service is available for foreign subscribers at \$15.00 per year additional. Second class postage paid at Long Beach, CA. POSTMASTER: Send address changes to Mead Publishing Corporation, 21176 S. Alameda Street, Long Beach, CA 90810.

Copyright 1983 by Mead Publishing Corporation under Universal Copyright Convention. All rights reserved. Reproduction in whole or part is prohibited without permission in writing from the publisher.

Any similarity between places or persons mentioned in fiction or semifictional stories is coincidental.

Publisher disclaims all responsibility to return unsolicited editorial matter, and all rights in portions published thereof remain the sole property of Mead Publishing Corporation. Editorial contributions are not acknowledged or returned unless accompanied by an addressed, stamped return envelope. Payment for articles, photographs or drawings is made upon acceptance, current rates prevailing. Letters to Electronic Entertainment Magazine, its editors or agents or Mead Publishing Corporation become the property of the magazine and are assumed intended for publication in whole or in part and may therefore be used for such purposes without compensation of any kind. Publisher reserves the right to reject, revise, condense, abridge, expand, retitle or rewrite all contributions to suit its requirements.

Publisher assumes no responsibility for statements made by advertisers and reserves the right to reject or edit any advertisements considered to be dishonest, misleading, inappropriate or in nonconformance with Publisher's standards of acceptance.

THIS ISSUE

FEATURES

Inside the Dragon's Lair 28



Worth much more than a cursory glance or slapdash treatment, this new arcade game, DRAGON'S LAIR, is revolutionizing arcade gameplay. And, that's not all! The laser disk technology that has put this amazing animation classic in the news *also* will make historical inroads via *home* laser disk players—in the works right now, for Spring of 1984! We take you behind the scenes, at Bluth Animation, showing you the people behind the pictures.

DEPARTMENTS

News & Products 4

If there's news to be made and news to be told, then there is news for you—and it's right here. What other publication offers you as much of the up-to-the-minute? With so much going on and so much coming out and all these industrial irons in the fire, it is the wise consumer who reads the news. We've got it all!

Editorial 27

Whence video gaming? Whence entertainment of the electronic type? And whence the commercial arcade? The questions and conjectures abound inside and outside the industry. Amid consumer unrest and public anxiety, video gaming is continuing to grow through major changes. The schizophrenic atmosphere in which video games push for significance is fraught with uncertainty, misinformation and delay. What is *really* going on?

Software Review 38

So, there's been a slight slackening of the software push and the race for more and more and more carts, diskettes, and you-name-it. So, there's still some software that needs discussion, and we want our readers to be the ones in the know about the latest. This month we take a look at some of the fun you can get at your retail outlet right now—TUTANKHAM, BURGERTIME, ICE TREK and MATH FUN.

Product Review 41

BURGERTIME now is in handheld format and we have the review. Aren't you excited, really? As products are brought to our attention, we bring them to your attention. What could be handier? No one else will (or can) tell you what you need to know like we will (and do).

Book Review 42

We have some outstanding offerings for review this month in this section. Whether you want to learn "How to Cope with Computers," or are looking for an "Introduction to Computer Animation," reading material is available. We have these and two more in the review spotlight this time. Get smart.

Benji to teach via new science game from H.E.S.



Benji, the lovable dog from children's television adventure movies, is helping kids learn astronomy, geography and oceanography in the Benji Discovery Series, a new series of educational computer games from H.E.S.

The first game of the series to be released, **BENJI'S SPACE RESCUE**, sends Benji on a rescue mission in outer

space. In the course of helping Benji complete the rescue mission, children learn about the planets and other bodies that make up the solar system. The game provides information and motivates kids to ask questions about their world. It's also action-packed, making the learning more fun.

H.E.S.' new educational software package is initially available for use on the Commodore 64 home computer, with a future version scheduled for the Atari 400/800 computers.

BENJI'S SPACE RESCUE for the VIC-20 will be available nationwide in computer stores and mass retail outlets, with a suggested retail price of \$44.95.

Debut of four for 64!

Broderbund Software continues to diversify its product line by making four of its best selling titles available for the Commodore 64 computer. The programs are **CHOPLIFTER!**, **SEAFOX**, **SERPENTINE**, and **DAVID'S MIDNIGHT MAGIC**. All are available now.

CHOPLIFTER! features realistic throttle action as you try to rescue hostages from behind enemy lines in your helicopter. You must fend off enemy jet fighters and air mines above, and tank

fire and air-to-ground missile fire below as you try to bring the hostages to safety. The game features brilliant animation and realistic 3-D graphics. This game is available on cartridge for the Commodore 64, is joystick controlled and carries a suggested retail price of \$44.95.

SERPENTINE is an arcade action game with 20 different levels of challenging play. You are the snake and must get to the giant serpents before they get to you. The snake must protect its young from attack and destroy giant serpent eggs as well. On cartridge, for the Commodore 64, this game carries a

suggested retail price of \$39.95 and is joystick controlled.

SEAFOX has been described elsewhere in this section, in another format. **SEAFOX** for the Commodore 64 is on cartridge for about \$39.95 and is joystick controlled.

DAVID'S MIDNIGHT MAGIC is an award winning, high resolution pinball game. It features dual flipper control, upper and lower playing levels, tilt mechanisms, roll-over, multiple ball play, and many special effects. This game comes on disk for the Commodore 64 and carries a suggested retail price of \$34.95.



Covert coverup in classic caper

THE WITNESS, a new interactive personal computer game from Infocom, Inc., is now available at the retail level, according to the parent company. The game situations, personalities, settings and packaging all reflect the classic whodunits of the 1930s in rich detail.

Introduced as the second adventure game in the Infocom Mystery Series, THE WITNESS should appeal to a broad audience of microcomputer users. It incorporates a high level of authenticity and the latest advances in programming technology.

Stuart Galley, author of THE WITNESS and a long time contributor to the company's development process, has designed and written an adventure

that presents players with a Gordian knot of motives and alibis to untangle. The interaction in this game, according to Galley, is heightened because as the witness to a death, you are actually part of the plot. As the chief police detective, you have 12 hours to solve the crime.

Complementing the prose is a package designed in the form of a record jacket, that contains a number of new and different game pieces.

These include: The "Nat'l Detective Gazette," a replica of a 1930s detective magazine, that serves as a users' manual; a copy of a page from "The Register," a reproduction of a California newspaper that was printed February 1, 1938, the same month that the crime

occurs in the game; a suicide note from one of the characters, a Western Union telegram to the player, and matchbook from a nearby restaurant. These last three physical elements, along with the above pieces, all have important clues.

THE WITNESS is a follow-up to the very successful DEADLINE, Infocom's murder/mystery game that quickly rose to the top of the best-seller list in "Softalk" magazine. DEADLINE also drew national attention from the "New York Times," which referred to the game as a "rather amazing feat of programming."

THE WITNESS, which will retail for \$49.95 (some versions \$59.95), is compatible with popular computers.



Amiga gains more control

Amiga Corporation has announced the addition of three new video game controllers to its Power-Stick line.

Designed to work with ColecoVision, Intellivision and TI 99/4A systems, the new entries share the same precision switching mechanism, high-quality construction and ergonomic design present in Amiga Power-Sticks for Atari (2600/400/800/1200XL) and Commodore (VIC-20 and 64) hardware. The new Power-Stick for ColecoVision differs physically from the factory-supplied controller in two ways. First, the control stick is located at the base of the unit instead of the top. Secondly, it has been designed so the keypad section is tilted up at a 30-degree angle for easy viewing of the slide-in Mylar overlays supplied with many game cartridges. A standard nine-pin plug and six-foot cord make installation a simple procedure.

The Power-Stick for Intellivision is similar to the ColecoVision version in relation to control stick location and keypad tilt. The primary difference between the Power Stick and the factory controller is the substitution of the control stick for the standard Intellivision circular controller disc. The key-

pad section is designed to accommodate Intellivision game overlays.

The TI 99/4A version is identical in appearance to the current Power-Stick except that two controllers are hard-wired into a single plug to fit the particular jack configuration.

"We realized soon after we introduced the Atari Power-Stick that the market demand for precise, inexpensive, high-quality controllers was higher than we expected," noted Don Reisinger, executive with Amiga. "We also discovered the after-market for ColecoVision, Intellivision and the 99/4A controllers was exploding. And with the recent success we've had with the Atari version, we expect a similar response from users of these other popular systems."

The ColecoVision and Intellivision controllers retail for around \$20 each. They will also be available in twin-packs for about \$40. The TI 99/4A controllers will be about \$20 for the pair.

Fantasy trilogy to see release

Infocom, a publisher of interactive prose adventures for personal computers, has announced that it will expand its product line this fall with the release of ENCHANTER, the first in a new trilogy of fantasy games that will take players into a world of magical powers and perilous predicaments.

Co-authored by the same team that designed and wrote Infocom's popular ZORK underground fantasy series, ENCHANTER is an original, imaginative journey into an environment where you'll need skill and logic to overcome Krill, an evil warlock whose ever-increasing powers have shattered the peace of your world.

According to Marc Blank, co-author and company executive, "This game is written in the ZORK tradition, but with new and different settings. In the ZORK trilogy, the emphasis is on treasure and fighting, while in ENCHANTER, the focus is clearly on magic. During your journey, you'll explore an abandoned castle filled with strange and magical trappings. You'll uncover spell scrolls which you must learn to use judiciously in overcoming the many obstacles before you. Ultimately, you'll be able to use magic so effectively that the evil warlock will be banished forever."

"Another important element in ENCHANTER is the passing of game time. As the days pass in the story, you'll eat, drink, and sleep or you will reach a point where your powers start to fail."

ENCHANTER will retail for \$49.95, some versions for \$59.95, and is scheduled to be on the shelves in mid-September. Like all other Infocom products, this prose adventure game will be compatible with virtually every popular microcomputer on the market today.

In addition to the ZORK trilogy, the company markets a variety of other games that appeal to a broad audience of personal computer enthusiasts. These include DEADLINE and THE WITNESS, two whodunit adventures in the Infocom Mystery Series. DEADLINE was released last year and quickly became a favorite, while THE WITNESS (to be on retailer shelves this month) has already gained national exposure on the "CBS Morning News."

Science fiction buffs have two games to choose from, with a third on the way. STARCROSS, Infocom's original science fiction mindbender, continues to be a popular choice, while SUSPENDED, a cryogenic nightmare that takes players into the twilight world of a planet in its death throes, just recently reached the shelves. PLANETFALL, a lighthearted science fiction adventure, will be introduced in mid-August.

One of the major factors contributing to the favorable market response to these games is the use of "Interlogic," an exclusive programming system developed by Infocom that enables players to communicate with the games in normal English. "Interlogic" features a vocabulary of more than 600 words.

Extra, extra! Read all about it!

"How to Buy a Home Computer," a publication designed to help the consumer make an informed home computer buying decision, has been published by the Consumer Electronics Group of the Electronic Industries Association. Copies of the booklet were given to Virginia Knauer, Special Assistant to President Reagan for Consumer Affairs.

"This booklet will help the average consumer understand the evolving world of computers, and the book's glossary will acquaint consumers with many of the terms that will become commonplace in the years ahead," noted Ms. Knauer. She also cited the booklet as "an excellent example of the kind of useful material that consumers can use in making wise marketplace decisions."

The 50-page illustrated book is organized in the form of eleven step-by-step practical questions: 1) What do I want my computer to do?; 2) What software programs do I want?; 3) How do the computers compare?; 4) How much memory does the software need?; 5) Should I buy cassettes, cartridges or diskettes?; 6) What kind of keyboard will I like?; 7) What kind of display do I want?; 8) Do I need a printer?; 9) What other peripherals should I consider?; 10) What's my budget?; 11) Do I want to program?

The booklet provides fill-in questions the consumer should ask about each software package and computer, as well as a convenient budget form for planning expenditures. An executive with the parent group explained, "We wanted to arm first-time buyers with enough knowledge of terms and buying questions to remove the intimidation many people feel about visiting a computer retailer. There seems to be a common misconception that someone has to be a programmer or highly technical to own or enjoy a personal computer. Our booklet corrects that impression and makes it easy to get started."

Single copies are sent complimentary to retailers, manufacturers and others. Consumers can obtain a free copy by sending a 5" x 7" or larger self-addressed envelope with \$.54 postage to: Electronic Industries Association/Consumer Electronics Group, P.O. Box 19100, Washington, D.C., 20036 or call: (202) 457-4919.

Comin' in on a buzz and a bomb

Summertime, and Mattel Electronics has unleashed an army of angry honey bees on the home video game world. Armed only with a can of insect repellent, unsuspecting gamers will be subject to swarm after swarm of the stinging menace as it continues its

relentless quest to pollinate every flower in the world.

Here comes BUZZ BOMBERS, the new game for Intellivision from Mattel Electronics. Buzzing Bombers come in two deadly forms—the worker bees and the killer bees—who enter from the top of the game screen. The player controls a spray can of insect repellent, moving laterally across the bottom portion of the screen. The object of the game is to shoot the bees before they can descend and pollinate the flowers around your spray can.

BUZZ BOMBERS for Intellivision is available now, for approximately \$30. A honey of a treat for bee-leevers.

5200 gets new control!

Atari has announced the development and production of brand-new controllers for their 5200 Super System, according to sources there.

Apparently, there was widespread dissatisfaction with the earliest models of controller that were packed with sales of the 5200, resulting in an increase in returns and a decrease in initial sales of the game system. The new controllers will not have the internal problems of the originals, which often caused or contributed to controller malfunction before the terms of the warranty were even expired.

Unfortunately for those persons with a 5200 game system already in their possession, this new development will not be an automatic replacement unit. Controllers currently in use with the 5200 will be replaced only if difficulties emerge while the unit is still under warranty. New controllers will be packaged only with the new systems as they reach the marketplace.

In addition to internal problems, the 5200 controllers have been the subject of widespread complaint due to the analog design of the controller units. This design concept leaves no room for self-centering sticks, and has been found particularly ineffective in maze game play. The new controllers will offer an analog/self-centering combination.

Although no release date has as yet been specified by the people at Atari, the new joysticks should be available at the retail level sometime late this summer or early in the fall. The con-

trollers will be sold separately, as well as with purchase of the 5200 system. No suggested retail price has been set for the controllers.

Imagic and TI join forces

In a joint announcement, made during CES, Texas Instruments and Imagic disclosed an aggressive, long-term cooperative venture to develop entertainment and educational software for the Texas Instruments 99/4A Home Computer. The agreement produced immediate results, as both companies were able to demonstrate a number of titles during the CES.

The collaborative effort will involve significant cooperation in technological matters and marketing responsibilities representing an unusual venture in the industry.

The agreement calls for a minimum of seven Imagic/TI titles in the first year, including translations of Imagic's popular DEMON ATTACK and pioneering effort, MICROSURGEON, as well as FATHOM and FLAP! The games will employ voice synthesis technology, developed by Texas Instruments.

Details regarding pricing, availability and further specific titles will be announced later. The agreement is non-exclusive, meaning both companies retain the option to cooperate with other developers and manufacturers.

"TI is excited by this agreement because it will provide 99/4A owners with additional quality software from a proven source," said Bill Turner, Executive with Texas Instruments. "We are delighted to welcome Imagic to the list of leading creative organizations that are developing software for the 99/4A."

William F.X. Grubb, Imagic executive, agreed. "Imagic and TI are highly advanced in their applied technologies and our expectations are appropriately high. On our part, this is a major step in our continuing emphasis on the development of software for the rapidly expanding home computer market."

Local user group forms free exchange

What began as a "nice little idea" has turned into something much more,

according to Mr. Tony Alvarez, founding person of the "Commodore Connection," here in Southern California.

The organization, which has already drawn a tremendous local response, has its headquarters in Riverside. It was formed by Alvarez in an attempt to link owners/users of the Commodore 64 personal home computer.

"I just wanted to get a few owners together to form a pool of information," said Alvarez. "The initial response to the formation of the network has been overwhelming."

As a first step, Mr. Alvarez ran the following ad in a local newspaper: "Commodore 64 Owners. We Commodore users are getting together. We now have access to all Commodore 64 accessories and software at the lowest prices. We are starting a free software exchange. We also want to exchange knowledge with you absolutely free. We now have an information exchange free to all. We help each other for free—we are not a store! We are the Commodore Connection. Commodore users helping Commodore users."

According to Alvarez, in the first couple of days the ad was running, five computer technicians and several programmers called and offered help. "This is tremendously exciting," said Alvarez. "We are equipped to act as a central clearing house for local 64 users. We find out where the software is available and at what prices, then we pass that information along. We keep everyone busy doing legwork on pricing and product availability, so that all our information is completely up-to-date. We have access to thousands of tapes, and we're offering them for free exchange. There's nothing like this anywhere that I know of."

Game encounters of the video kind!

Thorn EMI Home Video released two new home computer games during the CES last month: ORC ATTACK and FOURTH ENCOUNTER. Additionally, the company also released two of its more popular games, SUBMARINE COMMANDER and RIVER RESCUE. The first title has been available to owners of the Atari 400/800 and is now compatible with the VIC-20. The latter title was previously available only for the VIC-20, but is now available for use

on the Atari 400/800.

ORC ATTACK is in cartridge form for the Atari 400/800 computers. The game features realistic animation and fast action as The Orcs, armed to the teeth, erect ladders and scale the walls, while their archers fire a hail of cross-bow bolts. It is up to the player to beat back the ferocious Orcs and defend the kingdom.

FOURTH ENCOUNTER is available in cartridge form for the VIC-20. This game offers the challenge of saving a planet from an invasion of armies of power-mad aliens. If they succeed, they bring slavery, death and destruction. The player can blast the aliens from the skies with lethal laser bolts, but the last opponent is the most deadly of all—a mass of phosphorescent photons with the power of de-energizing you. Get ready!

Plan, play or program with new game trio

Three exciting new programs have been made available nationwide by Timeworks, Inc., publisher of personal computer software. Created for the Timex Sinclair 1000 and Sinclair ZX-81 computers, these three new programs bring to sixteen the number of programs available for Timex Sinclair from Timeworks.

The new programs include the entertaining SCYON'S REVENGE, a 3-D fast action arcade type game of realistic deep space combat. SCYONS includes a 4-color plastic keyboard overlay so the player punches command buttons instead of computer numbers and letters.

The second new program is THE PROGRAMMING KIT I. This is a practical, "how-to" learning approach to basic programming and includes Timeworks' exclusive eight-step approach to program design, easily and fully explained with each program.

5-2K FAMILY PAK, a series of five household programs for the basic Timex Sinclair and Sinclair ZX-81, designed to improve productivity of your family and yourself in day to day tasks. The program includes a Memo-board (a family message center), a Check Book Balancer, Recipe Recorder, Mini-Money Manager, and the Homework Helper.

Tested for load reliability, program quality (such as us usually found in more expensive programs), and user enjoyment and understanding, Timeworks' programs have been proven outstanding in their creativity, interest, educational appeal and entertainment value. Suggested retail ranges from \$12.95 to \$19.95.

VCH going everywhere!

The response to the introduction of the VCH, Video Coin Holder and brainchild of Nicoletti Productions, Inc., has been nearly overwhelming. The VCH is being offered nationwide through selected distributors who are willing to promote the product actively, with a positive attitude.

Additionally, the VCH is now seeing a lot of action in some school districts, in which the Coin Holder is used as an "educational incentive" for those students with good grades. Commercial arcades have already discovered the advantages of the Video Coin Holder, through modification of the unit. These arcades are interested in using the coin holder only. This holder is square and durable, easy to use and convenient to carry. For a small deposit in some cases, a VCH filled with the appropriate number of quarters may be given out to customers rather than trying to keep them in "loose change."

The possibilities boggle the mind. There have been many requests for the VCH from people who want to use them for quarter-containers at toll booths, in laundromats and for slot machines. Some folks are considering using the Video Coin Holder for their subway tokens. C'mon, now folks!

Prices of trackballs rolled down by Wico!

With the increased availability of trackball-compatible home video game software leading to increased sales of the game controller units, Wico Corporation has elected to pass on the volume savings to the consumer by lowering the suggested retail prices on two of its popular Command Control trackballs. This price reduction is also expected to benefit Wico retailers and distributors by providing them with a more competitively priced product group.

Effective the first of June, the company's trackball Model 72-4545, compatible with the Atari 2600, 400/800/1200, Sears Arcade Game and the Commodore 64 and VIC-20 home computers, will list for \$49.95, down from \$69.95. Wico's trackball Model 72-4560, which works directly with Texas Instruments Home Computers, will also list for \$49.95, from \$69.95.

First Star gives CHASE to Parker Brothers

ASTRO CHASE, "... there is no escape!" has been licensed by Parker Brothers from First Star Software. Under this agreement, Parker Brothers will market the video game and home computer versions of ASTRO CHASE exclusively and worldwide. First Star has retained the coin operated, non-programmable handheld and counter-top rights, as well as merchandising and other rights.

ASTRO CHASE was named "Computer Game of the Month" in a recent issue of *Dealerscope* magazine, and for three months was among Britain's top ten (*Popular Computer World*), spending one week in the number-one position.

The innovative design of ASTRO CHASE includes fully animated cartoon intermissions and Single Thrust Propulsion, a proprietary process which allows the player to lusk the craft on course and then fire independently in any direction—such as firing backwards while retreating.

Vectrex adds more around the edges

General Consumer Electronics has announced its latest plans for a new line of peripherals to be introduced for use with the Vectrex Graphic Computer System. The Vectrex system, which has its own built-in screen and uses vector scan display technology, was introduced last fall in selected markets, and was expanded nationally earlier this year. The following peripherals are scheduled for availability this fall:

The Vectrex Light Pen plugs directly into the Vectrex console and allows the user to interact directly with the pro-

duct's microprocessor, through the built-in Vectrex screen. The Light Pen, which will be priced to retail for about \$40, is scheduled for shipment to retailers this fall.

As an introductory promotion, consumers purchasing the Light Pen prior to December 31, 1983 will receive a free ART MASTER cartridge. This cartridge, when used with the Light Pen, allows the consumer to draw electronically on the Vectrex screen and to create remarkable animation sequences. The ART MASTER cartridge, which has a retail value of about \$40, will be packed free in the Light Pen package.

Other cartridges scheduled for this fall for use with the Light Pen include, ANIMATION, which allows the user to create more advanced animated scenes; MELODY MASTER, which allows the user to create and edit musical tunes directly on the Vectrex screen; and MAIL PLANE, a game that teaches geography in a unique and interesting way.

A second product introduction is for the Vectrex 3-D Imager, which also plugs into the current Vectrex console. It allows the consumer to play specially designed Vectrex games in true 3-D and color. This development makes Vectrex the only in-home video system to offer true 3-D video games.

The 3-D Imager will be shipped to retail at about \$50. As an introductory consumer promotion, the 3-D Imager will be packed with an exciting 3-D game cartridge, announced at the June CES. Four 3-D cartridges are scheduled for shipment this fall including, MINE STORM, NARROW ESCAPE, CRAZY COASTER, and a fourth game to be announced shortly. All will be priced to retail at under \$40.

Video games in the friendly skies?

Can you imagine DONKEY KONG at 40,000 feet? That is now a reality as Canadian Pacific Airlines pioneers the introduction of in-flight video games for passenger rental, aboard CP Air flights between Vancouver, B.C. and Amsterdam.

For the past couple of months, the airline has been testing the idea of video games in the air. They offered six portable video game sets for rent in the non-

movie section of the aircraft. The game sets, which fit snugly over the dinner trays that fold out from seat backs, are the following: BLACK JACK, BASEBALL, BOXING, DONKEY KONG, SNOOPY TENNIS and MICKEY MOUSE. Rental cost of the video sets is \$3.50 (Canadian) for the full nine hour flight.

According to airline executive Dave Hewitt, permanent video sets will be built into the seat trays if this idea catches on with air passengers. "Eventually," he noted, "all the electronic game units would become more sophisticated, offering not only games but also flight and safety information and perhaps even computer capabilities."

Very adult games, less the X

There are adults and there are adults. A company by the name of Blue Chip Software is appealing to adults with three unique computer games. Two of the games, MILLIONAIRE and TYCOON, are available now for a suggested retail price of \$59.95, or for \$69.95 on the 8" format. The third game, BARON, should be available soon.

According to the publishing company, you don't have to know a bill from a bull in order to enjoy these realistic simulations. They claim that by playing these games you'll learn a lot about investing, just for the fun of it. "Fun beyond fantasy!" notes the advertising for these games. "Have the time of your life in the most intense adventures you've ever played."

Apparently simulations from Blue Chip Software are already in homes, high schools, universities and executive suites all over the world. This computer experience seems to grab everyone, from bankers to computer adventurers. With no monsters to chase you and no mazes to hide in, these mature adventures in reality test your decision-making skills to the limit. Each simulation offers graphs, computer generated news stories and sophisticated trading options. They even charge you brokerage commissions and taxes.

MILLIONAIRE is "The Stock Market Simulation." Call options, put options, borrow against your net worth and buy on margin. All this is possible with the aid of revealing graphs and

corporate histories. Find out how the big guys do it.

TYCOON is "The Commodity Market Simulation." Trade precious metals, foreign currency, treasury bills, as well as agricultural commodities. Complex graphs and fascinating commodity histories enhance this mental adventure in the world of high finance.

Obviously, these are not games for the faint of heart, the weak of will. To win you must maintain control in the financial fast lane; a moment's carelessness could spell financial ruin. Invest wisely and you acquire wealth beyond your dreams.

These games are designed to last. Each one contains a built-in program generator which creates an entirely new trading environment on command. So, the play is always challenging and there is no added cost for new scenarios. BARON will be the next in the series, and will be "The Real Estate Market Simulation," a particularly relevant adventure in reality. The games all are compatible with Apple computers, IBM PC, and Atari home computers.

Good stuff for the 64

Three new informative programs have just been made available nationally by Timeworks, Inc., independent publisher of personal computer software. Created specifically for the popular Commodore 64 computer, these new programs are some of the eleven new programs for the the 64 from Timeworks.

DUNGEON OF THE ALGEBRA DRAGONS is an adventure-in-learning game. It provides a challenging and enjoyable way to develop algebra skills. It carries a suggested retail price of \$24.95.

PROGRAMMING KIT I is a practical how-to learning approach to basic programming. The package includes an exclusive eight-step approach to program design, easily and fully explained. It sells for approximately \$24.95 at retail.

THE ELECTRONIC CHECKBOOK is a check recording, sorting and balancing system that sells for approximately \$24.95.

Each program is packaged in a four-color box with overview, and at-a-glance program parameters. A compre-

hensive, easily readable and simply understandable manual is included in each package.

The Pro has a double

Newport Controls has just announced its newest game controller, the Prostick 2002, direct replacement for TI 99/4 and TI 99/4A. The interface unit is included in the purchase package.

The Prostick 2002 comes equipped with Newport Controls' exclusive 4way/8way Switchable Gateplate. This feature provides the ability to select 4way/8way operation. Eight-way joysticks do not work properly with TI arcade games such as MUCNCHMAN, as the diagonal inputs cause unpredictable results and erratic movement. To correct this problem, Newport Controls designed a selectable dial to lock out the diagonal directions when playing arcade games with only vertical and horizontal movement. The two settings are clearly marked on the joystick; just set the desired mode. The improvement in play and response is immediately apparent.

In addition, the Prostick 2002 comes equipped with two "soft-touch" firing buttons which have been moved to the top end of the base allowing either right or left-hand play. This location of the dual fire buttons is designed to take advantage of the greater dexterity of the index finger, resulting in quicker response time and less fatigue during extended play.

With quality and durability being the primary objectives of Newport Controls, their Prostick 2002 is backed by a full five-year warranty. It retails for approximately \$29.95.

Computer books hit the top!

One of the nation's largest chain of bookstores, B. Dalton, has predicted that computer books will outsell fiction in its stores during 1983.

Quoting from a special report, Tom Bennett, Dalton's computer book buyer, said that the chain's sales of computer books jumped over 150% from 1981 to 1982; he expects figures for 1983 to be even higher.

Waldenbooks, another large national bookstore chain, was quoted in Wall

Street Journal as saying that computer books are outselling cookbooks and sell nearly as well as science fiction books in their stores. That same article quotes the Ingram Book Company, a national book wholesaler, as stating that computer books are "by far the fastest growing book category."

As one of the leading publishers of computer books, Sybex, Inc., has more than doubled its sales each year since 1976—sales for 1982 were approximately \$10 million. Rodney Zaks, company executive, believes 1983 will see even faster growth. "Our books have always been popular, even when there was a much smaller audience. I have seen the market pendulum swing. We began by publishing fairly technical, but readily understandable books. Later there was, and is now, a demand for computer books of a more general nature. However, as people become more familiar with computers they need the technical, how-to books to get the most out of the computers."

The case of program copyrights

Apple Computer, Inc. is a company that manufactures and sells computers, related peripheral equipment, computer programs and other software programs for computers. They recently won a court case in which a decision was made on the copyrightability of computer programs.

The Defendant in the case, Formula International, Inc., operates an electronics supply store selling at wholesale and retail. Formula does not manufacture any of the products it sells. In 1982, Formula International started to sell a computer kit under the trademark, "Pineapple." When assembled, the kit makes up a computer like the Apple II and is almost indistinguishable from the appearance of the Apple II computer.

Apple Computer utilized diskettes and ROMs, which it manufactured and programmed to drive and operate the computer which produces the final results (output) for the user. Apple Computer presented evidence in court that Formula's kit and peripheral equipment contained the identical copies of computer programs imprinted on the Apple Computer diskettes and ROMs.

Formula International did not dis-

pute that claim, but maintained that "operating" computer programs which are designed and used to control computer operations (through diskettes and ROMs), are not subject to copyright protection.

The court found that, regardless of purpose or function, *all* computer programs are copyrightable, including the program utilized to "control or run" the computer that produces the visual communication with the user.

To support its decision, the District Court pointed out that the National Commission on New Technological Use of Copyright Works (CONTU) was set up to consider public policy questions in the copyright field. That Commission recommended that *all* computer programs, fixed in any method and performing *any* function, be included within copyright protection. Congress accepted these recommendations and incorporated them into the 1980 amendments to the Copyright Law.

The Court summed up: "Apple seeks here not to protect ideas (i.e., making the machine perform particular functions), but rather to protect their particular expressions of those ideas in the form of specific programs. Formula wants the privilege of using and marketing those expressions without having to invest the millions of dollars and thousands of manpower hours necessary to develop them. Simple economics suggests that Formula's strategy would hinder, not promote, competition and innovation in the computer market. Few companies are going to invest the time and resources to develop new programs if their products can be freely duplicated by anyone. Such "competitors," who could undersell the originator simply because they don't have its development costs, would destroy the market which any innovator needs to recoup his investment."

Snakes, subs and choppers go for 64

Four new titles for the Commodore 64 have become available recently from Broderbund Software, which continues to diversify its product line. The four programs are: CHOPLIFTER!, SEAFOX, SERPENTINE and DAVID'S MIDNIGHT MAGIC.

CHOPLIFTER! by Dan Gorlin (con-

version by Dane Bigham) features realistic throttle action as you try to rescue hostages from behind enemy lines in your helicopter. You must fend off enemy jet fighters and air mines above, and tank fire and air-to-ground missile fire below as you try to bring the hostages to safety. The game features distinctive animation and realistic 3-D graphics. The game is on cartridge for the Commodore 64, is joystick controlled, and retails for approximately \$44.95.

SERPENTINE, by David Snider (conversion by Mac Senour), is an arcade action game with 20 different levels of challenging play. You are the snake and must get to the giant serpents before they get to you. The snake must protect its young from attack and destroy giant serpent eggs as well. SERPENTINE is on cartridge and carries a suggested retail price of \$39.95. It also is joystick controlled.

SEAFOX, by Ed Hobbs, is an underwater action game with five levels of difficulty. While piloting a submarine, you must take on a convoy of enemy ships and its escort at the same time you dodge exploding depth charges, mines and torpedoes. You need superior maneuvering ability and courage to survive. On cartridge, this game sells for \$39.95 or less at retail and is joystick controlled.

DAVID'S MIDNIGHT MAGIC, by David Snider (conversion by Martin Kahn), is an award winning, high resolution pinball game. It features dual flipper control, upper and lower playing levels, tilt mechanisms, rollover, multiple ball play and many special effects. It is available now on disk, with a suggested retail price of \$34.95

Ten events let you score high

How fast is fast? As fast as the smooth explosion of an athlete's dash down a 100-meter track in Mexico City, 1968. How high is high? As high as the tip of the fiberglass pole that lifts an athlete into the cool Montreal night, 1976. How far is far? As far as the distance between an athlete and his spinning discus, tossed on a warm afternoon in Los Angeles, 1984.

These answers all lead to perhaps the grandest athletic laurel known to man: an Olympic gold medal in the legend-

ary decathlon. And now, David Crane brings the thrill of this ten-event classic to his new home video game cartridge, THE ACTIVISION DECATHLON.

THE ACTIVISION DECATHLON opens as a torch-bearing athlete trots into a hushed auditorium while the Olympic theme plays in the background. Then the competition begins. All ten events of the modern decathlon are represented. A gauge at the bottom of the screen measures the player's actual performance against a scale of maximum potential. Times, distances and points are also automatically tallied on a scoreboard. If a player scores 1,000 or more points on any event, a trumpet fanfare announces the achievement.

David Crane designed the game with varied gameplay in mind: a player-controlled athlete runs the 100, 400 and 1500-meter races as well as the 110-meter hurdles. He puts the shot, and throws the javelin and discus. He attempts the high jump, long jump and pole vault.

Crane also introduces a new element which adds challenge to the decathlon game. In each event, the scoring is determined by the speed and timing with which each of up to four competitors can operate the joystick. The faster the player moves the controller, the better the athlete performs. Success requires both skill and strength, as well as split-second timing.

The competition is grueling and realistic. In the jumping events, for example, the player gets three tries at each placement of the bar. Move the stick and the athlete sprints down the runway. The jump is made by a push of the controller button. Push too soon, and the jump is short; too late, and the jumper "scratches."

The same is true for the throwing events: stick movement gets the athlete to the "board," then a push of the button sends the projectile—shot, discus or javelin—zooming out over the emerald green turf.

Compatible with the Atari 2600 and Sears Video Arcade, THE ACTIVISION DECATHLON carries a suggested retail price of \$34.95.

Brothers branch out even more

It was bound to happen sooner or

later. There's Parker Brothers, one of the undisputed leaders in the gaming field, putting their money into games of every kind, size and description, and someone mentions personal home computers. The Brothers just want to know one thing: "how soon can we make games for them?"

Well, now seemed like a good time. So here's a whole new line of game software products from the folks at Parker Brothers. It's one game at a time, but the plans are extensive. Parker Brothers Home Computer Software now offers games in four distinct categories.

The hottest of arcade games will be brought home to the computer, Parker Brothers' way. Arcade Action Games such as Q-BERT, POPEYE, TUTANKHAM and SUPERCOBRA are due soon, and FROGGER for the computer is already available.

For their Adventure Game series, Parker Brothers will bring LORD OF THE RINGS out sometime this fall. Later on this year, they will debut other original adventure games with fascinating themes, involving story lines and innovative game play.

For Classic Strategy Games, the Brothers will build on their 100 years of experience with strategy games, and use the computer to enhance the game experience with new challenges. Look for RISK in the fall and CLUE and MONOPOLY to follow.

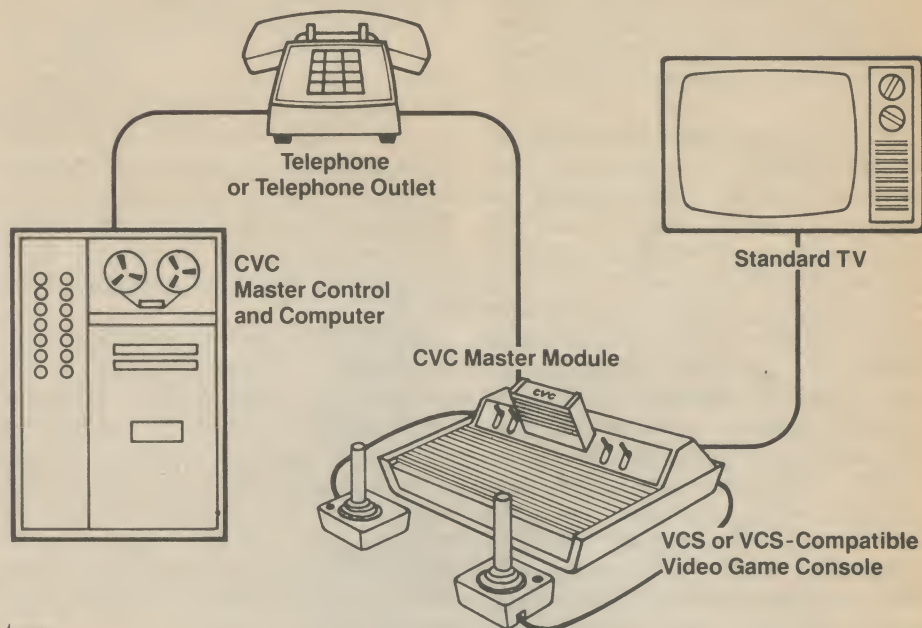
Parker Brothers is putting out a line of Discover Games in order to give kids an unstructured learning environment where they can create, explore and design, all at their own pace. RONALD MCDONALD, Q-BERT and SPIDERMAN will help kids learn computer literacy, basic learning skills, and creative design. More games of this nature will be offered later.

So, whether you have an Apple, a VIC, a 64, a TI or Atari home computer, you can rest assured that the Brothers are looking out for you.

Give the gift of brains

America is "wired" for the information explosion and Control Video Corporation is taking the lead in energizing the wires by turning video game playing units into "smart" communications terminals capable of accessing the powers of large compu-

Control Video Corporation (CVC) GameLine System



ters.

Twelve million households which already own video game systems will be able to tap into a nationwide network offering new games and eventually information, news and special services such as banking at home. For William von Meister, founder and CEO of the company, this concept essentially extends a previously successful venture. In 1978, von Meister started The Source, the nation's first information and videotex system for home and small business owners of personal computers. The Source was subsequently sold to the Reader's Digest Association in 1980.

The essential element in operating The Source and similar services springing from CVC's idea, is a means to communicate with a central computer which stores the information or data. Up to now, the only thing an Atari 2600

could "communicate" with was the game cartridge plugged into it.

"Several video game manufacturers have announced their intentions to develop add-on equipment to turn game units into small computers," says von Meister. "Our system leaps ahead of those add-ons to tie the VCS and compatible units into a national telecommunications network fed by the power of a large central computer's data base.

"The potential for a system such as ours is virtually limitless. The thing I am most proud of is that we've devised a way to offer a high-speed, computer driven information system to the average family without requiring them to purchase a computer and separate telecommunications devices.

"We're going to spread computer literacy in a fun, informative and affordable way."

Tut takes tough tack in home game

Entombed deep within the earth, the mystery and magic of the King Tut legend endures. Now Parker Brothers has brought the treasure hunt of the ages to life in a home video game, TUTANKHAM, available now at retail outlets nationwide.

Players venture into the depths of King Tut's tomb in search of keys to unlock secret vaults, rumored to be laden with fortunes in treasure. But the

journey through this royal burial site is fraught with peril.

Upon entering the tomb, players unknowingly conjure up a deadly curse that brings to life evil spirits intent on guarding the vaults and protecting the secrets of the tomb. Armed only with lasers, players must ward off these demons and increasingly devious spirits.

As players move deeper and deeper into the tomb, they are confronted with the realization that they may never escape. Compatible with the Atari 2600 and the Sears Video Arcade now, this



game should be released for the Intellivision sometime this month. TUTANKHAM will be available for ColecoVision and Atari 5200 later this fall.

Spread the joy of the board control

Responding to the high level of interest in "The Joyboard," introduced earlier this year, Amiga Corporation today unveiled versions of this innovative, stand-on controller for other popular home computer systems, including the Atari home computers and the VIC-20.

According to Don Reisinger, Amiga executive, introduction of The Joyboard for these other systems was originally slated for early 1984. "We anticipated an enthusiastic response when we demonstrated The Joyboard earlier this year," noted Reisinger. "With the current interest running far ahead of our expectations, we decided to accelerate the production of Joyboards for these other systems."

With the Joyboard, game play can be controlled using the entire body instead of just the hands, opening up unexplored avenues for video game play. And to complement the Joyboard, Amiga has developed a complete line of first person video games—from skiing to surfing to body-play party games.

The Joyboard comes with MOGUL MANIAC, a first-person skiing/slalom

A simple plan for cleaning up



New modular computer furniture, packed with attractive styling and special features such as slotted printer stand and half and full length monitor shelves, has been introduced by Time-works, Inc.

Becker Personal Computer Furniture is the name of the new line, and it is all manufactured in durable, non-staining, top-quality vinyl laminates.

The personal computer desk measures 28" high by 36" wide, by 23½" deep. It combines no-nonsense function with handsome styling. Features include: attractive round rail design for operator safety, non-glare laminated surfaces for reduced eye strain and increased efficiency, modesty panel and handy full length storage shelf. Suggested retail price is only \$109.

Shelves feature back panels to

simulate a game. Other current game titles include SURF'S UP and OFF YOUR ROCKER. Other games are under development.

Retail price for The Joyboard with MOGUL MANIAC will be around \$50; additional games should be about \$20.

The Joyboard can also be used with currently available video games such

as MS. PAC-MAN to add an exciting new twist to familiar gameplay. Or, a conventional joystick can be plugged into The Joyboard and used with invader-type games such as DEMON ATTACK. Missiles can be fired by pressing the joystick trigger with the hand, while the shooter is controlled using The Joyboard.

accommodate equipment lines; full width top shelf for eyelevel monitor viewing, to eliminate operator fatigue while providing room for manuals, disc holders and more. The unit measures 8" high by 34½" wide, by 11" deep. Suggested retail price is \$39.95. Also available is a half width top shelf for a suggested retail price of \$34.95

The printer stand is slotted to accommodate bottom feed printers and more. This handsome roll-about table measures 23½" high by 23" wide, by 18" deep and can also be used as a word processor table, television table, video game table or typewriter table. Suggested retail is \$89.95.

All units come knocked down, with simple instructions for assembly enclosed. Only a Phillips-head screwdriver is needed for assembly.

as MS. PAC-MAN to add an exciting new twist to familiar gameplay. Or, a conventional joystick can be plugged into The Joyboard and used with invader-type games such as DEMON ATTACK. Missiles can be fired by pressing the joystick trigger with the hand, while the shooter is controlled using The Joyboard.

Fuzzy little guy with long snout hops home

Q*BERT, that impish little fuzzball so hot to trot, has been playing to sell-out audiences in commercial arcades for the past several months. Thanks to Parker Brothers and their video game developers, Q*BERT can come home. Additionally, he will arrive in the format you want most.

Like the arcade format, gameplay begins with Q*BERT atop a pyramid of cubes. The challenge for the player is to successfully hop Q*Bert from one cube to the next while evading bouncing balls, the snake and a host of critters all determined to foil Q's artistic ambitions.

With each successful landing, Q*bert changes the cube to the appropriate color. However, each time the mischievous "Slick" rolls onto a cube, he changes it back to its original color and Q*Bert must change it back again. Q*Bert can lure the springy snake and other sneaky characters off the

pyramid by jumping to safety aboard a floating disc.

Players successful on the first round are rewarded with a second, more difficult level of play. Players, ages seven to adult, can keep Q*BERT hopping on colorful screens through nine increasingly difficult levels of gameplay.



Available for the Atari 2600 and Intellivision this month, Q*BERT will carry a suggested retail price of between \$25 and \$30. Versions of this game for use with the Atari 5200 and ColecoVision will be available in September. The tabletop version of Q*BERT, available now, is at retail for approximately \$55.

Convert controls, get results!

Video Product Sales was the first independent manufacturer of viable, successful controller conversion, namely the Injoy-A-Stick. As a conversion kit for Intellivision, the Injoy-A-Sticks met with critical acclaim and consumer popularity almost immediately.

Now Video Product Sales has taken a good idea a step further, and has manufactured a version of Injoy-A-Stick for the ColecoVision, once again leading the pack with a "first."

Made in the same style as the very successful Injoy-A-Stick for Intellivision, the version for ColecoVision comes in grey plastic to match the controller buttons. Installation is accomplished simply and in just minutes. Remove the metal center insert, unscrew the exposed Phillips head screw, replace the short knob with the conversion Injoy-A-Stick and then reinsert the screw.

In that short period of time, a whole lot is accomplished. Conversion to Injoy-A-Sticks allows all hands, whether small or large, dainty or stubby (or any variation in between), to gain control of any game situation.

The sticks are both available on a mail order basis, two sticks per package, for \$8.95 from Lasky Distributing,

20 Morning Dove, Irvine, California 92714.

More good stuff for Apple lovers

What's up at Broderbund is creative juices, seemingly flowing at high tide levels. Now they have come up with three terrific programs for Apple computers and the people who play with them.

The latest Broderbund release for the Apple II is *LODE RUNNER*, an arcade-style release that will never run short of challenge. That's because *LODE RUNNER* offers Apple II gamers an unlimited number of games within one game package.

To begin with, *LODE RUNNER* serves up to 150 different game screens, each with its own unique puzzles and challenges. Each of the 150 different levels requires strategic problem solving and quick thinking in addition to lightning-fast reflexes. The playability, animation and graphics are, of course, all up to the standards Broderbund considers state-of-the-art.

But that's just half the story, because *LODE RUNNER* is also a powerful, easy-to-use Game Generator that lets you design your very own *LODE RUNNER* games. Without any knowledge of programming, you can easily design and save to disk, your own uni-

que *LODE RUNNER* screens, then bring them to action-packed, animated life.

As a highly trained Galactic Commando, you will be maneuvering through scene after scene—running, jumping, drilling passageways, and outfoxing life-threatening guards as you pick up chests of gold hidden in the secret underground treasury of the repressive Bungeling Empire. Playable with either joystick or keyboard, this game carries a suggested retail price of \$34.95 and is available immediately.

Also for the Apple computer user is a new game called *QUESTRON*, an adventure in legends and mythology.

A dark cloud hangs over the vast *Questron* Empire, a marvelous kingdom of wizards, castles and kings. Mantor, an evil sorcerer, has escaped from the castle prison and fled to a distant continent known as The Land of Evil. From there, Mantor uses his treacherous powers to rule over armies of evil monsters, commanding them to terrorize and destroy the peaceable villages and citizenry of *Questron*.

But all is not lost. According to legend, a lowly serf will one day arise from humble beginnings to search out the evil Mantor and destroy him in battle, thereby restoring peace to the realm. This legend becomes your hero's quest, and your continuing entertainment, in *QUESTRON*, a graphic

adventure-odyssey spanning oceans, islands and two continents, and taking you into villages, castles, torture chambers, 3-D catacombs, gambling halls and cathedrals.

QUESTRON is available now for the Apple II/II+/IIE computers at a suggested retail price of \$44.95

Imagine you are an apprentice in a gumball factory. You are the lucky one who gets to sort out all the tantalizing gumballs at the famous Sticky Sole Gumball Factory. Overzealous dental assistants have planted dynamite crystals in the sugar supply and are trying to blow up the factory. Your mission is to zap the flashing, explosive-laced gumballs before they go off, while keeping up with your regular sorting duties.

That's GUMBALL, the new action arcade game that is full of visual surprises and between-game graphic displays. Designed for the AppleII/II+/IIE disk format, it carries a suggested list price of \$29.95.

M*A*S*H game price slashed!

In a precedent-setting move, Fox Video Games has reduced the suggested retail price on its top selling Atari 2600 compatible M*A*S*H video game. The cartridge, already appearing on best seller lists across the country, will now sell for \$14.95 instead of the original \$29.95 price.

Fox Video exec, Frank O'Connell, announced the new pricing in response to growing retailer concern over the current market glut in 2600 titles and inventory. "Right now there is a serious glut in the Atari 2600 cartridge segment," said O'Connell. "We believe it is time a major manufacturer addressed the problem with a move that would stimulate product sell-through and get the market moving again."

O'Connell believes the price reduction is even more significant in view of the licensed title's strong consumer appeal. "Most games selling in the \$15 price range are usually two or three year-old releases, whose best sales days are well behind them, or failed games once offered by now defunct manufacturers. Our move has retailers applauding because this is the first time a major licensed game has been so aggressively priced and will result in a positive effect on the market."

O'Connell expects the current industry 2600 software glut to be significantly reduced within the next two months when the company plans to release FALL GUY. "The market is still turned on by the new products," he says, "because the trade knows consumers are turned on by them. So, once retailers push through all the low-priced games, I think we will again return to a very healthy and profitable cartridge industry, but unlike before, it will not be dominated by a single format."

More get-smart games to come

DesignWare, an educational software developer, has agreed to develop and market educational software programs with Silver Burdett Company, an educational publisher.

Under the agreement, DesignWare will develop up to five new programs for both home and school use by the middle of 1984. DesignWare will market the products to consumers and Silver Burdett will market them to schools. All products will carry both labels.

DesignWare has been developing and distributing educational software for Atari, Apple and IBM computers for more than three years. Silver Burdett has been publishing educational materials since 1885.

The software uses Silver Burdett's textbook spelling list and techniques that have been developed for specific age levels. Both the school and home products will use the same word lists. However, the school programs will be accompanied by print material customized for the educational market. Home products will have simple instructions for children.

Gemini does double duty now

Gemini Industries, Inc., previously involved solely in the manufacture of cable television products, announced a brand new line of products at the recent CES.

Claude Zahn, company executive, made the announcements used to introduce the new line of video game accessories to the market.

Highlighting the variety of new

accessories are Quikstik and Gemstik, two joysticks which are the lowest priced in the country, according to Gemini. Quikstik is their new deluxe joystick with dual firing buttons and Gemstik is a single firing button model.

Other accessories developed for inclusion in this line are game switches and adapters; joystick extension cable; joystick replacement cable, and more.

Fear not the Dreadnaught Factor

Activision has announced the release of THE DREADNAUGHT FACTOR, a stunning space battle between squadrons of agile "hyperfighters" and a monolithic masterpiece of weapons technology known as the Dreadnaught. At stake: the life of Terra, a tranquil, peaceloving planet.

THE DREADNAUGHT FACTOR, which is the first game for Activision by designer Tom Loughry, is the fourth Activision cartridge compatible with Intellivision and the Sears Super Video Arcade. It will be available in September and will carry a suggested retail price of \$39.95.

In the DREADNAUGHT FACTOR, the aqua planet Terra's galactic radar reveals a strange, plodding delta configuration which is 100 parsecs away and closing fast. A Terran hyperfighter—mobile, lightweight, made of titanium-beryllium alloy, the finest battlecraft in the galaxy—peels away from its fleet to investigate. Entering Terra's stargate, the hyperfighter is automatically hurled into star-jeweled hyperspace and accelerates to meet the unknown "factor."

But the factor turns out to be unlike anything seen in Terra's galaxy. It is a gigantic alien spacecraft that is, in fact, much larger than the entire video screen. One thing very quickly becomes clear—the Dreadnaught is nothing less than a floating fortress bent on planetary destruction, and, when one is destroyed, another takes its place.

Guiding the hyperfighter through a series of deadly attack passes, the player fires laser bolts and drops deadly strontium bombs on the methodically advancing enemy. But the Dreadnaught is 1000 times bigger than the hyperfighter and bristling with sophisticated weaponry: blue battalions of fixed rocket cannons, which fire

straight ahead; yellow towers that unleash deadly, heat-seeking swarms; large and small launchers, armed with relentless tracker missiles; and the ominous black silos, which house the doomsday warheads that will destroy Terra if the Dreadnaught reaches the stargate. To even the odds however, the player can destroy the yellow bridges, which reduces the overall firepower of the Dreadnaught by 50 percent.

The hyperfighter can fly only forward as it makes its attack passes. To destroy the enemy, the player must drop bombs on its achilles heels: 16 energy vents. The battle is ferocious. Once the fighter flies beyond the Dreadnaught, it passes through an auxiliary stargate and returns for another assault on the behemoth invader.

The Dreadnaught approaches Terra, parsec by parsec, relentlessly, never dodging fire, never flinching, exuding awesome power and imperial arrogance. But, it can be slowed by crippling the four red actinium-powered engines at the rear of the Dreadnaught. Their collective "roar" drops in pitch as each one is destroyed. Yet every Terran attack pass brings the Dreadnaught closer to the stargate. Time is limited and so is the fleet of hyperfighters. Only a wing commander of consummate skill can avert disaster.

Table the games on oak

Bush Industries has introduced its new Oak Classics line, a debut made at recent CES. Expanding its line of electronics furniture, Bush is adding high-quality, solid-wood items to its quality-designed, rapidly growing line of



cabinetry.

Oak Classics are handsome, contemporary solid oak and oak veneer pieces for all varieties of home entertainment equipment. The units in the series are designed to function individually or as part of strikingly attractive complete entertainment centers. The warm, natural beauty of oak and the richly detailed furniture styling make Oak Classics ideal for all room settings. An eight-step, hand-rubbed finish highlights the natural beauty of the oak grain.

A slip-in television/VCR cabinet is Oak Classics Model OC-1435. Its solid oak sides and top fully frame the television set. Adjustable width panels give the entire unit a customized console look. Most 19" color television sets fit this design element. Tempered safety-glass doors with oak trim enclose the roll-out VCR shelf plus tape and accessory storage. Concealed casters add roll-about convenience to this handsome cabinet furniture. Measuring 44" high by 29" wide by 17" deep, it is priced to retail at \$259.95.

Model OC-1430 is a compact, full-featured video cabinet constructed of

Six for the 64 debut

Infocom, Inc., the leading producer of interactive prose adventure games for personal computers, and Commodore Business Machines, Inc. have announced an agreement that allows Commodore to add six Infocom products to its software lineup.

The arrangement was announced at CES by Joel Berez, Infocom exec, and Sig Hartmann, spokesman for Commodore. It means that ZORK I, ZORK II, ZORK III, DEADLINE, STARCROSS and SUSPENDED will be available from the computer company for the Commodore 64. First deliveries were made last month.

In a formal statement made during CES, Hartmann said, "These games include some of the best-selling adventure games in the industry. The ZORK series has been extremely popular and we believe it will be even more popular on the Commodore 64.

"Our research shows that the game-playing public wants more challenging games, games that make you think and analyze and make decisions . . . this excellent adventure series meets the need. We think the Infocom products

oak solids and oak veneers. A rollout shelf permits easy access to the VCR and the spacious shelf holds video cassettes and other accessories. Oak-framed tempered safety-glass doors provide dust-free protection and easy access. The TV cabinet measures 24" high by 29" wide by 17" deep, accommodating most 19" television sets. Casters make the unit easily moveable. Its suggested retail price is \$199.95.

A television cart, Model OC-1420, has an intricate lock-corner joint rail construction and brushed brass hooded casters to provide mobility. Its 27" usable width TV shelf holds most models of 19" color televisions. Solid oak rails and oak veneer shelves have the Oak Classics hand-rubbed finish, which brings out the natural grain of this most popular wood.

Bush products are carefully engineered for stability, quick and easy assembly and strength, with pre-drilled, pre-assembled panels, strong metal tie-rod support systems and concealed fasteners. Only a screwdriver is required for assembly. Bush products are sold by audio, video, department and discount stores nationwide.

will be our best selling games during the coming year."

With the addition of the ZORK trilogy to its software offerings, Commodore gives its computer users an opportunity to enter a fascinating underground fantasy world—a world where they'll strive to discover the Twenty Treasures of Zork, challenge the Wizard of Frobozz, and encounter the Dungeon Master himself.

In DEADLINE, a popular murder/mystery game, players face a 12-hour time limit as they try to solve one of the most baffling cases in the annals of criminology. Since its release last year, DEADLINE has been a consistent favorite of computer users and reviewers alike.

STARCROSS, Infocom's original science fiction mindbender, continues to be a favorite among game enthusiasts, while SUSPENDED is rapidly building momentum after its spring release. SUSPENDED, written by Michael Berlyn, reaches an advanced stage of interaction as players manipulate six robots in a quest to save the planet from destruction.

One of the major reasons for the growth in popularity of computer game

software by Infocom is their use of an exclusive "Interlogic" development system, which enables players to use complete sentences (rather than the standard two-word commands) when taking various action during a game. The system has a 600-word vocabulary, the largest available today.

VIC gets three hit games

If you are the owner of a VIC-20 computer, you can stop missing out on the fun, games and adventure of Broderbund Software computer games.

"Until now," says Doug Carlston, company exec, "the more than one million owners of VIC-20 personal computers have been unable to enjoy (our) high quality computer releases.

"Attracted to computers and game software because of the VIC's inexpensive pricing, these consumers still want software and video games that offer them the same graphic creativity and resolution available to owners of more expensive Apples and Ataris," he adds.

"In addition, developing product for VIC-20 users enables Broderbund dealers to tap into that huge reservoir of consumers who have been waiting for high quality games."

Initial game introductions for the VIC-20 product line include: AE, a game in which the object is to rid the galaxy of pollution-controlling stingers running amok; SKY BLAZER, a shoot-em-up defense game with five different missions; and SEAFOX, a search and destroy submarine game.

Mag's look, feel, name all change

There is an unwritten law of energy that goes something like: Change is the single constant. Everything changes. That which does not change, dies, and in so doing is changed.

In keeping with the basic tenets of that "law," *Arcade Magazine* is changing in several ways. "Our magazine will continue to provide unparalleled editorial coverage of all the latest developments in the field of electronic entertainment," noted Daniel Mead, corporate executive. "We have made and are currently making, concerted efforts to tailor our appearance to more accu-

rately reflect our position as the industry's only 'trade journal' specifically for consumers."

One of the more noticeable changes will be in name, as the familiar *Arcade* logo is dropped and the magazine's new name, "Electronic Entertainment" is adopted. "From the beginning of this publication," said Mead, "we have encouraged expansive coverage of both the world of video games in home and arcades, and the world of home personal computers. We have been the only magazine in the industry to effectively wed the two."

Because of this, several references to *Arcade* as a consumer's "trade journal" were made by persons within the industry. "We think the comparison is quite apt," noted Mead. "Since our beginning, we have focused on sophistication, maturity and the intelligent dispensation of information. We devote the bulk of our magazine to timely presentation of product announcements, and the critical review of these same products as they become available to the customer."

The black-and-white format of *Arcade* has lent itself well to the building of a mature image for the magazine. This will not change significantly when the publication becomes *Electronic Entertainment*.

"We have already switched over to a less expensive printing process," says Mead. "We changed paper stock as well, an additionally cost-effective move. We can still produce quality photographs and will actually have the ability to incorporate more spot color throughout the magazine than we did previously.

"We want to make the magazine not only easier to read and less expensive to produce, we wanted to scale costs to the point where we could encourage black-and-white advertising, so often relegated to secondary or inferior placement in publications. Color ads will still be available, of course," added Mead. "We have not sacrificed quality of product in *any* of our cosmetic changes."

The addition of new typesetting equipment in the offices of the Mead Publishing Corporation should prove beneficial to the readers of the magazine as well as the production personnel involved. "As you can see," Mead said, "we are steadfastly committed to maintaining the highest levels of compe-

tence and quality, while also producing an affordable, totally unique publication."

According to Mead, *Electronic Entertainment* is written by professionals who are not only familiar with editorial styling and content, but are also computer literate. "We're not a purple-paged picture book, with flashy yellow-stars and limited content of questionable accuracy," Mead stated. "We are now, and have been since the outset, a magazine to be *read*. That means we are more likely to appeal to the mature individual, the families, the literate and the intelligent reader/consumer.

"As anyone in the business can tell you, video games and computer systems on which to play them, bring in a tremendous amount of money. That means the consumers are interested in the products enough to go out and spend hard-earned money on them. We want those consumers to be informed, and we believe we can do that better than anyone."

Cracked pot caper bugs out

Activision, Inc. has announced the release of CRACKPOTS, a new home video game that was shipped in July. It should be available at the retail level the first of this month.

In CRACKPOTS, the first Activision game from designer Dan Kitchen, a wide-eyed rooftop gardener named Potsy tosses flower pots at a swarm of creepy sewer-bugs crawling toward his apartment windows. It is compatible with the Atari 2600 and the Sears Video Arcade. It will carry a suggested retail price of \$31.95.

CRACKPOTS begins with Potsy, mouth open, staring frantically down from the roof of a multistoried building. What he sees disconcerts him—hordes of undulating bugs are massing in the sewer, poised to scale the wall.

Suddenly, the pestilent assault begins. The player, using the joystick controller, must be neighborly enough to guide Potsy to the appropriate petunia pots, which, with a push of the red button, Potsy heaves from the ledge onto the encroaching roaches.

The horrible bugs come in platoons. The first batch is black and swarms straight up. Each successive platoon is of another hue and crawl-pattern. Some

side sideways, some crab crookedly, others zip in zany zig-zags.

Potsy pushes with particular passion because if just six insects reach his windows, a voracious monster bug will buzz through the bottom floor—after which the building drops a level with a resounding boom. Naturally, the closer to the ground Potsy gets, the less time he has to pick off the wriggling intruders. The action gets faster, more furious and more hilarious, as the player tries to keep Potsy from going buggy in the face of the enemy.

Wily Fox makes crafty move

Determined to maintain its position as one of the leading producers of video game software, Fox Video Games has increased its software development group by 25 percent with the addition of veteran game designers and specialists in sound and graphics. The move is expected to expand the company's ability to deliver state-of-the-art programs for ColecoVision and popular personal computer formats.

Utilizing its experience gained in motion picture production, the wholly owned subsidiary of Twentieth Century-Fox Film Corp. will group the technicians into creative teams in order to bring state-of-the-art games into the market. Fox has already done this in its Chicago office with the addition of leading coin-op engineers who will develop arcade quality ColecoVision games. The company has bolstered its Santa Clara group by hiring sound and animation experts as well as senior engineers specializing in personal computer software.

"We are aggressively moving into a new game design form," said Frank O'Connell, Fox exec. "It is a team-oriented concept similar to that used in the movie industry, engineered to make our games the most creative and technologically advanced on the market.

O'Connell stressed the fact that many of the new engineers are not from traditional computer areas. "We have recruited our talent from outside the game industry because we're looking to bring something different to the market. Many of our new designers have record and movie industry backgrounds."

Frank believes that the innovation in

selection and application of personnel will literally reinvent the video game. "By placing people with different creative backgrounds in a team environment, we hope to do away with the current game design mentality that has people creating games based on the limitations of the specific hardware rather than their own unlimited imaginations. We believe our new approach will allow us to get into areas now only thought about, including voice synthesis, digital sound and new types of animation."

O'Connell anticipates the market will see the fruits of the design teams' labors as early as the fourth quarter of this year. "Right now the team is concentrating on our major Christmas introduction, the game adaptation of the TV hit, 'The Fall Guy.' We hope to usher in a whole new generation of videogaming for all home game mainframes and computer formats."

STAR WARS trips through fantasy

A technically advanced video game, offering players a STAR WARS fantasy experience, has been developed by the Coin-Operated Games Division of Atari, Inc., in cooperation with Lucasfilm, Ltd.

Atari introduced the first of a trilogy of "Star Wars" related games to the American market last month, capitalizing on the widespread popularity of the Lucas inspired films. The latest film release, "Return of the Jedi," is drawing record crowds at nationwide theatres.

"We fully expect our new STAR WARS game to be a box-office hit too," notes Don Osborne, marketing exec with Atari. "The game is technically superior to anything we have produced to date and definitely captures the essence of the 'Star Wars' fantasy."

Atari's STR WARS coin game uses technology that has been in development for the past few years. As a result, the game is powered by three microprocessors combined with a large number of custom integrated circuits. Among these are special sound chips that generate actual dialogue and music from the movie, that are heard in response to actions by the players in certain game sequences. A new high resolution color vector monitor provides exciting three

dimensional-like imagery and exceptional clarity of graphics. These elements dramatically reinforce the player's projected role as the legendary hero Luke Skywalker, battling the Imperial Fighters to save the Rebel Forces.

Adding realism to the coin game is a sophisticated "human engineered" flight controller. This specially designed controller, engineered to reduce fatigue, allows players to navigate and fire simultaneously, simulating maneuvers and actions taken by Luke Skywalker in his quest to destroy the Empire's Death Star and the infamous Darth Vader.

Osborne views STAR WARS as a quantum leap by the company into the next generation of coin game programming and design. "It's an indication of how evolving technology will make a big impact on the interactive nature and continued viability of game playing," he noted.

"With the refinement of video graphics, voice simulation and music enhancement, coin games will immerse the player in a truly personal entertainment spectacle. It will project players into roles they were previously only able to imagine."

The game will be available in the traditional upright models in addition to a cockpit version offering players enhanced stereo sound while embarking on this space age fantasy. Costs for play range from 50 cents for the sit-down experience to 25 cents for a turn at the upright model.

Name change big news

D. Gottlieb & Co., manufacturer of coin operated games for the past 56 years, has changed its name to Mylstar Electronics, Inc. The change took effect the third day of July.

"The name change reflects our plans to grow in the coin operated field," said Boyd Browne, company executive, "as well as to expand our opportunities to enter other high technology segments of the entertainment industry. Our first 1983 hit game, Q*BERT, demonstrated that we know how to capture the imagination of today's game playing audience. Under the Mylstar banner, we expect to continue producing many more successes."

According to Browne, "The Mylstar name was chosen because it evokes the image of an organization where exciting new products are being created to meet the entertainment needs of tomorrow."

Coming in with a chase and a spy

Two games from Parker Brothers, JAMES BOND and ASTRO CHASE are here now and ready for play. One will be for your computer, the other for your game system. Suggested retail price for each will be somewhere between \$25 and \$30.

ASTRO CHASE, compatible with the Atari 400/800/1200XL, will be released this month. It is licensed from First Star Software, Inc., and designed by Fernando Herrera. Gameplay begins with one of eight vivid animation sequences as an ace space soldier emerges from his futuristic home and is beamed aboard his spacecraft. His mission: to save Earth from destruction by eliminating the megamines, the ultimate threat to humanity. Distracting him from his mission are a host of enemy attack fighters, which have been programmed to pursue and destroy the spacecraft.

Not for the faint of heart, this game requires sound strategy, quick reflexes and perfect aim. Crucial to the player's defense is knowing whether to attack the mines or enemy ships, when to deploy the defense shields, and when to pursue more energy to fuel the mission.

Coleco's Adam in court already

Coleco Industries, proud parents of Adam the computer, have been named in a copyright infringement suit filed in the U.S. District Court of California. The suit was brought against Coleco by Logical Business Machines of Sunnyvale, California, in the heart of the Silicon Valley.

Logical charges Coleco with infringement of a copyrighted name—that of "Adam." Logical claims that they have been using that same name for years to refer to one of their \$20,000 business machines and that Coleco has no rights to use that name for another product.

Coleco's Adam is an industry smash that became something of an overnight sensation following its debut at the Summer CES in June. Adam is an all-in-one computer system for under \$600. It is due to be shipped out this month. The full system includes a daisy wheel printer, hi-speed magnetic tape memory, and integrated word processing software.

In the suit, Logical asked that Coleco be restrained from use of the name, Adam, and that they be awarded \$500,000 to advertise the differences in the systems adequately. They stated they were not aware of another use of the name until Coleco's Adam gained national attention through the media. According to court documents in the case, Logical maintains that Coleco "was well aware that Logical had already used the Adam name."

Coleco Industries, in a prepared statement to the press, described the suit as "incorrect and without merit in view of the fact that their application for registration of the trademark in the U.S. Patent and Trademark Office was abandoned January 31, 1983." A spokeswoman for Coleco added that Coleco was actually granted rights to the trademark as early as 1976. She admitted that a countersuit is a possibility, but refused to elaborate any further.

The complaint that was filed against

Coleco revealed that the company has no intentions of giving up the name; that the use of the Adam trademark on Coleco's part is "irrevocable."

Kidvid nabs Q*bert for the telly

Q*bert, a unique personality that has made waves in the coin operated industry, will soon leap out of the video arcade games and into Saturday morning children's television.

The series, "Saturday Supercade," is scheduled to air on the CBS television network starting September 17, and will be shown weekly at 8:30-9:30 a.m., EST (one hour earlier, PST).

Starring in the series will be the cube-hopping Q*bert and all his friends: Q*tee, his favorite noser honey; Q*ball, the buddy most likely to create trouble; Q*bit, his tag-along little brother; and, his totally awesome Valley Girl pal, Q*val.

The story takes place in a visually exciting fantasyland with Q*bert and pals getting involved in typically hilarious adventures. But, no matter what the good guys try to do, their plans are undermined by Coily and his gang of rotten accomplices. Competition is the name of the game in the Q*bert show.



More control from Comrex

Two uniquely contoured joysticks introduced by Comrex International, provide the precision control, quick response and ease of operation necessary to achieve new levels of performance in computer and video game

systems.

The controllers were introduced during the recent CES. Model CR-301 is the standard controller, model CR-401 is the deluxe controller. Both are compatible

Continued on page 37

Datasoft brings another one home

All the excitement and fun of the POOYAN arcade game by Konami Industries, can now be enjoyed at home thanks to Datasoft, which introduced POOYAN as a computer game on diskette and cassette at Summer CES.



POOYAN combines colorful graphics with fast action. It requires quick reflexes and fast thinking as you battle a pack of vicious, hungry wolves in order to protect helpless piglets roaming the forest.

Clinging to air-filled balloons, the wolves travel up and down the forest valley as you glide up and down in a tram car. As the wolves hurl objects, you try to lure them out of battle by tossing chunks of meat at them.

But the wolves don't give up easily, and you shouldn't either. You have a bow and arrow in hand. Try to pop the balloons and look out below. Don't let too many wolves escape the arrows because they are planning to push a giant rock, aimed right at you, over the cliff.

POOYAN, which has a two-player option and two scenarios, is easy to learn. The player needs only a television set or video monitor and a joystick to start the fun.

The game shown at CES is a diskette and cassette package for the Radio Shack color computer. POOYAN is

scheduled for availability in diskette and cassette for the Atari 400/800/1200 computers sometime this month. Datasoft also plans to release the game on an Atari cartridge, Apple diskette, Commodore 64 cartridge and VIC-20 cartridge in the future.

POOYAN carries a current suggested retail price of \$34.95.

Multiplay cart comes from Amiga

Amiga Corporation chose the Summer CES to take the wraps off a unique three-game cartridge for the Atari 2600 and compatible systems. Using microprocessor-controlled ROM technology, the new multiplay cartridge approach allows the creation of games with dramatically expanded graphics and sound, while still providing the convenience of the plug-in format.

The new multiplay carts, called the Power-Play Arcade series, contain three completely different video games—not just variations of one.

The first release, Power-Play Arcade #1, will feature an all 3-D video game format, including 3-D GHOST ATTACK, 3-D HAVOC and 3-D GENESIS. Arcade #2 and #3 are currently under development and are scheduled for release later this year.

"The fast-moving video game market signaled an important change," noted Don Reisinger, executive with Amiga. "The desire for more play per dollar has increased. We have responded with this technological advance that allows us to pack more games onto one cartridge and still deliver them at a competitive retail price."

Power-Play Arcade #1 will retail between \$30 and \$40. Delivery is scheduled for the third quarter of this year.

New group plans practical products

In keeping with its series of spreadsheet programs (PRACTICALC, PRACTICALC PLUS, PRACTICALC 64), Computer Software Associates of Randolph, Massachusetts, has announced plans for a full line of "Practical" products to be developed over the next year.

Most significantly, each Practical

product will be complementary to other Practical family members, greatly increasing and enhancing users' options that will result in extremely powerful and flexible programs.

Robert Shapiro (on the right in the picture), executive with the firm, commented that "The addition of a Practical family of products is the result of the natural outgrowth of the PractiCalc series. Our studies show that once users get beyond games for their VIC-20 and Commodore 64, which seems to be happening with more frequency and rapidity, they look for software that is going to expand the usefulness of their machines."

Shapiro foresees three basic categories of software for the serious home market: spreadsheets, word processing and database managers. Computer Software Associates' initial entries outside the realm of spreadsheet programs will be PRACTIWORD and PRACTIBASE, a word processing program and database manager, respectively.



PRACTIWORD will be available for both the VIC and the 64 microcomputers, in both tape and disk formats. Projections place the program in the \$50 to \$75 price range. PRACTIBASE will also be written for both the VIC-20 and the Commodore 64. Shapiro expects the disk version to be the preferred customer choice because of its speed.

"Once we have the three basic programs," Shapiro continued, "we plan to develop modules to accompany them."

Atari to take Brothers around the world

Atari recently announced an agree-

ment with Nintendo Company of Japan and its subsidiary, Nintendo of America, Inc., in which Atari was granted an exclusive worldwide license (except Japan) to develop, manufacture and distribute home video games and computer games based on Nintendo's MARIO BROTHERS, coin operated video game.

MARIO BROTHERS is the third game in Nintendo's hugely successful DONKEY KONG series. Atari currently holds the exclusive rights to sell home computer versions of DONKEY KONG and DONKEY KONG JUNIOR., the first two games in the series.

DONKEY KONG for Atari computers is currently available in retail outlets nationwide, and DONKEY KONG JUNIOR for Atari computers is expected to be available for Atari home video games by Christmas and Atari home computers in early 1984.

In commenting on the agreement, Raymond Kassar, Atari executive said, "DONKEY KONG and DONKEY KONG JUNIOR are key elements in our home computer entertainment software library. We are delighted to have the opportunity to expand our relationship with Nintendo to include MARIO BROTHERS for video games as well as home computers."

Only the names have changed

The titles of three new games from Imagic, introduced during the recent CES in Chicago, have already undergone change.

The three games, previously titled TARANTULA, HOP TO IT and FLAP, will instead be titled LASER GATES, QUICK STEP and WING WAR, respectively.

Softsync comes back a winner

Softsync, a New York based software production house, was one of the big winners at this year's CES Showcase. Four of the five programs chosen in the Timex Sinclair category were published by Softsync.

A panel of judges picked the most innovative computer software produced during the past year. Among the five chosen in the Timex Sinclair cate-

gory were: MOTHERSHIP, MAZOGS, TS DESTROYER and QUEST FOR THE HOLY GRAIL, all published by Softsync.

The company is the largest independent producer of software for Timex Sinclair computers and company president, Sue Currier, was elated with the awards. "They come at a good time," said Currier, "since we are expanding into Commodore 64 software. These awards are a reminder of the high standards Softsync sets for itself."

MAZOGS is a clever, fast moving game with amazing graphics for the TS1000 computer. It combines skill and strategy, and each game uses a new, randomly drawn screen.

MOTHERSHIP is an arcade-style game which uses 3-D type graphics. It is, perhaps, the most playable and interesting of the games available for the TS1000.

TS DESTROYER is an entertaining game which requires only 2K of memory. Its playability rivals games of much greater memory.

QUEST FOR THE HOLY GRAIL is a mind stimulating adventure game, something usually restricted to larger personal computers.

Programmers at Softsync are working now on a complete line of software for the Commodore 64 and for the new TS2000 computer from Timex Sinclair, which is scheduled for release very soon.

New system inputs for Coleco

Premiering at CES this summer, was the I/OS, an advanced CP/M-compatible operating system from InfoSoft. This unique operating system software debuted in its first home computer use on the ColecoVision Computer Module at the show.

According to Arnold Greenberg, of Coleco, "We chose InfoSoft to develop our operating system software because their operating system makes our Computer Module potentially compatible with thousands of existing professional and business programs. We were also impressed with their experience in designing and installing operating systems for a wide variety of computer manufacturers."

Jerrold Koret, of InfoSoft Systems commented, "We're pleased to play a

vital role in developing this revolutionary home computer. This makes us the first software house to work with a major manufacturer of home computers in adapting business software for the consumer. Sophisticated software once available only to professionals and businesses can now be placed in the hands of millions of home computer owners."

InfoSoft also announced the formation of a new division to develop and market applications software. The first offering will be a key applications package for the ColecoVision Module. Koret noted that InfoSoft's future software development efforts will be in the educational and other markets.

TG gets into games for Atari

TG Products has announced the creation of a new division, TG Software, to develop and market programs for Atari computers.

According to Don Geyer, executive with TG, the company "will be a full-line supplier of Atari products. As we expand into the Atari market, we want a diverse product line including software, joysticks and trackballs. Our goal is not to become a major software company, but to provide special arcade-style games that will complement our already well-known controllers."

Being a full-line Atari supplier not only strengthens the integrity of the TG line, but also provides TG with merchandising and advertising flexibility. The merchandising program will be developed to "pull through" both the software and the controllers on the retail level. A cross coupon promotion for the games and controllers is just one of the many ideas being considered.

TG Software initially released four games during CES. These are on solid state cartridges for the Atari 400/800/1200 computers. They include DROIDS, NIGHTSTRIKE, OZZY'S ORCHARD and ABRACADABRA.

DROIDS is a fantasy space game. When your spaceship goes through a cosmic warp, little robots or Droids that were created to maintain life support systems on the ships, go a little crazy. Instead of performing their assigned duties, they run around turning off the life support systems. Your job is to follow the Droids, maintain the systems,

NEWS & PRODUCTS

and bring them back up before time runs out. In addition, you must use the transporter beam to send the Droids back to the "holding apartment" so they cannot do any more damage. DROIDS is a one or two player game and is played against the clock. An added feature allows each player to play at different levels of skill during the same game.

In NIGHTSTRIKE, you are a tank commander charged with protecting a city from attacking missiles, low-level bombers and planes. The game features eight different playing levels, each one faster and more difficult than the preceding. NIGHTSTRIKE can be played by one or two players.

OZZY'S ORCHARD takes place within the boundaries of a fruit orchard. You, Ozzy, are armed with a tank of insecticide and your mission is two-fold: to kill off the bee-like insects and to catch the fruit as it falls off the trees. Each level of the game has four seasons. In the first, the fruit is very small. As the seasons progress, the fruit gets larger, until harvest time, when the fruit falls from the tree. To complicate matters, there are two types of insects—attacking and fruit-eating—both of which you must destroy with the insecticide. And when you run out of insecticide, you can only refill at the flashing refueling stations.

ABRACADABRA is a maze game for two players, in which your goal is to find your way to the end of the maze. If you accomplish this feat, you are rewarded with a special treasure. However, the only way to get to the treasure is by finding the floating key and unlocking the door it is hidden behind. You are hindered by several factors: the evil wizard who torments you with bombs; snakes and spiders, which you can destroy with the magic wand. In addition, the maze is constantly changing and the entrances and exits open and close at random.

All four games are now available for the Atari 400/800/1200 computers at a suggested retail price of \$44.95

Datasoft spawns new game line

Gentry Software, a new division of Datasoft, Inc., introduced twelve new computer games at the Chicago CES, all ranging in price from \$14.95 to

\$19.95.

STARBASE FIGHTER—Get ready for your flight through the vast, threatening reaches of outer space on a dangerous mission to meet and destroy the Alien Brain. If you can survive your encounter with the Brain and are able to complete your mission, you are given another journey that promises to leave you breathless. Available on diskette only for the Atari 400/800/1200, this game retails for approximately \$14.95.

MAGNETO BUGS—To see where you are going in this magnetic world, look through the Magic Magnifier. You get one look at the course and starting locations of the Magneto Bugs. As the positively-charged Power Bug, you energize all the neutral white power pellets. Then they glow red and attract the negatively-charged Magneto Bugs. Available on diskette, one side for the Atari 400/800/1200, the other side for Apple II, II+ and IIe, at a suggested list price of \$14.95.

MANIAC MINER—Experience the odd effects of gravity in the abandoned Goldbrick Mine. Jump, turn and even hover in mid-air. This comes in handy as you avoid bloodthirsty bats and dangerous spiders while going after elusive



jewels. The game play is mystical, but the sounds are realistic. Compatible with Atari 400/800/1200 computers, at a suggested price of \$14.95.

BREAK THE BANK: BLACK-JACK—Learn the tricks of the master card players in a few easy steps. Count cards like the pros in Las Vegas. Com-

pare different counting strategies with the enclosed evaluator. Playing Blackjack will never be the same. Available on diskette for the Apple II, II+ and IIe computers, for about \$14.95.

MEMORY MANIA and **MAXWELL'S DEMON**—Puzzle lovers will relish these two games. MEMORY MANIA tests ability to unscramble a picture divided into four to 64 pieces. MAXWELL'S DEMON tests skill and nerve. Atoms of hydrogen and helium bounce around one side of a two-part container at individual rates. The player moves the Demon gate up and down to separate the two elements. Eight skill levels in each game. Available for Atari 400/800/1200, at a suggested price of \$14.95.

TARGET PRACTICE—You have a limited amount of ammunition and must shoot elephants, bears, ducks and rabbits. Superb graphics, and a big surprise if you reach the tenth round. Diskette and cassette are packaged together and are compatible with Atari 400/800/1200 computers, at a suggested price of \$16.95.

ROSEN'S BRIGADE—Face an array of planes and choppers. Penetrate behind enemy lines and rescue your crew as they bail out. Not only must you fight off the onslaught of enemy aircraft, but also be crafty enough to destroy enemy tanks and battleships below. Your mission is to beat the clock and save the brigade. Diskette and cassette are packaged together at a suggested list price of \$16.95, and are compatible with Atari 400/800/1200 computers.

SEA BANDIT—Challenge the mysterious forces of the vast, dark ocean as you search for and capture glittering lost treasures. As you race against time, you must protect your treasure probe from the lurking danger below—concealed mines launched from the ocean floor. You'll need quick thinking and sharp reflexes to carry out this mission. Diskette and cassette are packaged together and compatible with Atari 400/800/1200 computers. They are available at a suggested retail price of \$16.95.

FORMULA 1 RACER—Race against the clock in this test of quick reactions and steady nerves. You drive a Formula 1 racer around a twisting course, swerving to avoid other racers and road signs whizzing past. As your skill improves, you can advance rapidly from novice to

intermediate, then on to expert! Available for a suggested retail price of \$19.95, on diskette only. Compatible with Apple II, II+ and IIe computers.

SPIDERQUAKE—You'll be surprised at this game's unusually realistic sound effects as you guide Eddie Eight Legs, a hopelessly lost spider, on his way to Spider Mountain. You must guide him across a busy highway and through the earthquake zone where his life is threatened with falling objects. If Eddie doesn't hurry, his life will be endangered by the Big Vulture in the sky. Available on diskette and cassette, for the Atari 400/800/1200 computers. Carries a suggested retail price of \$19.95.

HANDY DANDY—As the fearless fix-it man, you find yourself busy in a multi-level boiler room with wild rats, leaking hot steam, falling debris, mysterious elevators, pounding pile drivers and disappearing floors. You race to the top of each room before the time clock runs out. Look out below—the water is rising and you can't swim. Available on diskette only, for Apple II, II+ and IIe. Suggested retail price is \$19.95.

ALIEN MUNCHIES—The space age snack that you barbecue! It takes quick decisions and fancy footwork to catch the Munchies in a barbecue grill. The more you munch, the more points you score, so refuel that grill and satisfy your craving for Alien Munchies. Available on diskette only, for Apple II, II+ and IIe, this game has a suggested retail price of \$19.95.

New arcade game has Mideast air

The story is timeless: a lovely princess held captive in a castle tower and a courageous young prince on a perilous mission to rescue her.

Will he be successful? Will they live happily ever after? The answer is up to the player in **ARABIAN**, an adventure game for commercial arcades, introduced by Atari, Inc.

In **ARABIAN**, the player as the prince, must complete four levels of play before he can reach his ladyfair. The story opens on page one, as the levels are called, and takes place on a ship where the prince must climb rigging to reach a crow's nest at the top, thus completing the page.

On the way, he may collect brass



jugs, each with a letter of the alphabet on it. If he collects them in the proper order, the jugs will spell out "Arabian," and the player will be awarded bonus points. If he collects them in the wrong order, play continues, but no bonus is awarded.

The prince must also contend with a few obstacles: Roc Birds dive at him in an attempt to knock him off the rigging; Oscars chase him in an attempt to catch him; Genies fade in and out of sight, sending snowballs flying at the prince. He must be careful to avoid all these enemies or else kick them out of his way, for they will only set him back in his rescue efforts by forcing him to repeat the level of play.

The Genies cannot be kicked while visible. The Roc Birds and Oscars have the ability to combine, becoming Super Beings who add to the frustrations of the prince, but also give him the opportunity to score extra points by kicking them.

Once the first page has been completed, our hero begins page two standing on the shore. The path to the castle is dangerous and the prince must crawl through a cave. When he's not on his hands and knees, avoiding low-

hanging rocks, the prince is busy climbing or swinging across vines. All the while, the enemies continue to harrass the hero, who must still try to collect brass jugs for bonus points.

At the end of the cave, the prince must climb a tree. If he is successful, he proceeds to page three—at the gates of the castle. The only way up the wall is by hitching rides on a series of flying carpets. The prince super-leaps from carpet to carpet, being careful not to get knocked off by a low-flying carpet. Once at the top of the wall, page three is completed.

At last! Page four shows the princess, beckoning from her lonely perch. The prince must ride flying carpets and climb ropes to reach the princess. All the while, the prince must dodge foes and collect jugs. Finally, just when it seems he will never reach her, there is the princess. In a romantic moment, the two are reunited and fly off into the sunset on a magic carpet.

However, the story doesn't really end here. Only the first chapter is over. All four pages are repeated with faster action and more obstacles and jugs arranged haphazardly around the playfield, making it more difficult to complete the mission successfully and collect the bonus points.

ARABIAN is manufactured under license from Sun Electronics.

Romox to add life to TI

Romox Inc. has announced the introduction of its GamePort expansion module for the Texas Instruments 99/4A home computer. The GamePort accepts existing ROM cartridges and is priced at \$39.95, suggested retail. It will be available later this summer.

According to Romox executive, Paul Terrell, the announcement is in response to Texas Instruments' intent to modify its internal computer software to accept only cartridges programmed in Texas Instruments' "Grom" format. The effect of this modification would be to limit third-party publishers to Texas Instruments manufacturing channels.

"GamePort promises to breathe new life into the 99/4A," said Terrell. "Now the third-party publishers can directly tap into the over one million installed base of 99/4A computers by releasing

new products immediately."

Consumers will also benefit. The GamePort will give them a choice of hundreds of games that should become available from independent publishers over the next few years.

GamePort also features internal circuitry (ROM and RAM memory) that allows game designers to create arcade-quality animation and more sophisticated game play previously impossible on the 99/4A. It also allows publishers to develop advanced home management/productivity software.

"We want to give 99/4A consumers access to a wide variety of entertainment sources, not just one," noted Terrell. "We also want consumers to be able to take advantage of the dramatic price reductions possible."

Bally joins the Army

Bally Manufacturing Corporation announced recently that it has been awarded a United States Army contract valued at over \$15 million for the purpose of 4,920 gaming machines for use in Army installations overseas.

The contract, which includes an option for the purchase of 800 additional machines, is the largest of its type ever awarded, according to Robert Mullane, Bally exec.

"Like the rest of us," said Mullane, "our Armed Forces personnel stationed overseas have a real need for enjoyable leisure-time activity. As a world leader in leisure-time industries, Bally is particularly proud to have been awarded this important contract and to be helping meet the leisure needs of our servicemen far from home."

Three new ones from the wider rolls

Broderbund Software, recognized nationally for packing fun, imagination, challenge and graphic detail into its games for personal computers, invites the owners of Atari 400/800/1200 computers to sample three new games, developed exclusively for this market.

CARGO BAY is the latest creation of David Snider, designer and author of SERPENTINE and DAVID'S MIDNIGHT MAGIC. CARGO BAY is Snider's first game developed exclusively for owners of Atari home computers.

According to Cathy Carlston, Broderbund executive, "CARGO BAY offers consumers graphic images that are truly state-of-the-art.

CARGO BAY tells the story of an experienced dock worker in an exotic port of call, in the Tropics. When a natural disaster demolishes the native cities around Cargo Bay, you, as the dock worker, are responsible for managing the flow of emergency supplies being delivered to your port. Your overworked dockhands and truckers are nearly exhausted and their nerves are on edge. If you don't keep the smooth flow of cargo coming as you operate a maneuverable electromagnetic crane with your joystick, you could drive them over the brink and lose everything. On cartridge, CARGO BAY retails for approximately \$39.95.

MATCHBOXES is a computer skill game that challenges both intuition and power of recall. The game has been designed for one or two player action. MATCHBOXES fills the display screen with a grid of 36 numbered boxes, concealing an animated menagerie of colorful characters, creatures and objects. Each possesses a catchy musical signature.

The object of the game is to match identical squares and then solve a hidden word puzzle. Every time a correct match is made, the player earns a glimpse at two pieces that are frontwards, backwards, or scrambled, generated by the computer or a human opponent. This game carries a suggested retail price of \$29.95.

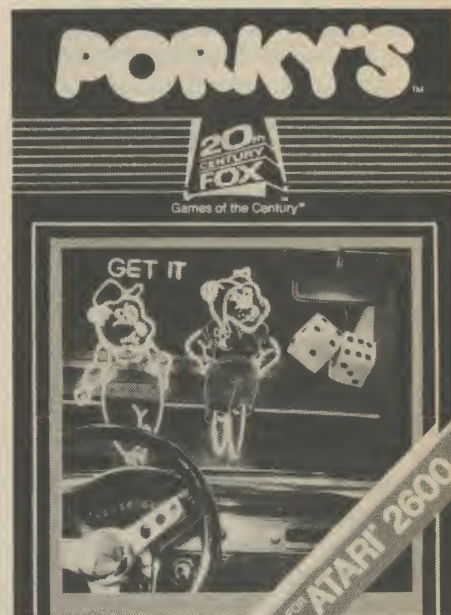
It's WW II, and it's up to you to muster up courage, polish your knowledge of military strategy, and move your battalion through a series of skirmishes and battle actions called OPERATION WHIRLWIND. War is rough as you use your joystick to move your on-screen cursor through many phases of computer battle action, including Command, Movement, Combat, Assault Order and Assault.

A typical game of OPERATION WHIRLWIND lasts from one to three hours and includes numerous cycles or skirmishes. Each of these phases requires you to complete a different set of strategic actions, as you move closer and closer to the climactic endgame crescendo. Your victory can be designated in one of five different ways: Questionable, Marginal, Tactical, Strategic and Breakthrough.

OPERATION WHIRLWIND was designed for Atari home computers by Roger Damon. It features Broderbund's special graphics and sound effects, and is ideal for both novice and advanced game player. It carries a suggested list price of \$39.95

Fox lets hot porker loose

Just as the movie, "Porky's—The Next Day," hit the screens across the nation, Fox Video Games announced the introduction of PORKY'S, a new video and computer game based on the film.



Frank O'Connell, Fox executive, said Fox expects the new game "to be the most successful video and personal computer game in 1983. Our targeted game player—the teenage male—is the same audience that made "Porky's" the fourth largest grossing film of 1982. Our game designers were able to cleverly incorporate all of the aspects of the movie into the game with the central theme being Pee Wee, Balbricker and Wendy trying to find a way to blow up Porky's Bar. It is by far the best integration of a movie and game that has ever been achieved."

PORKY'S is being introduced in formats designed for compatibility with the Atari 2600, Mattel's Intellivision system and ColecoVision in the video game version, and for the Atari 400/800, TI 99/4A and VIC-20 in the computer game version.

With PORKY'S, Fox Video Games has achieved major technological breakthroughs in the art of animation which allows for much clearer character representation on screen. PORKY'S also utilizes more memory—8K—in order to incorporate more program variety. Because the game features much more movement of characters per inch than other games being offered in the marketplace, the characters appear more lifelike and have smoother movements.

PORKY'S also boasts vivid color graphics on the five separate screens which are featured throughout the game. Unlike most conventional games, where all the action takes place on one screen that rarely, if ever changes, players of PORKY'S are allowed to advance to different levels—and different screens—by securing certain objectives. Gamers must work their way across a highway, through a swamp, past showers and a scaffold, before finding a way to blow up the bar.

New game hits homerun

With the crack of a bat and the roar of a crowd, baseball fever has arrived in the U.S. with the introduction of CHAMPION BASEBALL, challenging video game from Sega.

Touted as a video game unlike any other, CHAMPION BASEBALL is a thinking game, requiring players to constantly analyze their strategy and plan ahead as they play against the game's computer. Among the game's many unusual features, the two most unique are the highly realistic gameplay action and the total control a player has over every aspect of the game. Players may choose their favorite team; pitch; hit; run; field balls; steal bases; bunt; slide into base, in short, do everything that happens in a real baseball game. The only thing missing is the hotdogs.

Starting with a team roster, the player must choose his or her favorite team from among 12 cities, each team wearing uniforms closely matching the real thing. The computer then makes its selection from the remaining teams, and with the umpire's call of "Play Ball!" the game begins.

The unique split screen aspect of the game presents two separate views of



the game—one showing the ballfield from behind home plate or from the outfield (depending on whether the player is up to bat or on the defense), and an "Isolated Close-Up" showing the actions of the batter and the pitcher, much like television sports broadcasts.

Knocking the dirt from his cleats and stepping up to the plate, the player is the batter, controlling the batter's stance with the joystick and the swing of the bat with a control button. When each batter comes up, his lifetime batting average or ERA appears on the screen. If the batter is not very strong, the player, as team manager, can call up a pinch hitter.

Taking the computer's pitch, the player can bunt, hit to the opposite field, pull one down the line, foul out, hit a single, double or triple, power a grand slam homerun and more. Once the ball has been hit, it's a race around the diamond as the player runs the bases. Taking a lead, he can stand off base, waiting for the next hit. If the hit is good, he can run to the next base. If not, he can run back and try again. The next hit is a line drive shot down third; he tags up and goes for that extra base, sliding into the bag in a cloud of dust, and smiles as the umpire calls it safe.

Playing defense, the player moves with his team to the field and takes to the mound as pitcher. Sizing up the batter the computer sends to the plate, the player can control the pitch with the joystick and throw a Curve or Slider, Knuckle or Fastball, Fork or Screwball.

In the field, the player can maneuver his team to shag a fly, field a grounder, turn a double play, even catch the runner in a pick-off. Using the joystick, he can determine which member of the infield will receive the ball as it is thrown from the outfield, saving that deep drive to the centerfield wall from becoming a homerun and tagging the runner out at the plate.

The universal popularity of Sega's CHAMPION BASEBALL makes it a great favorite with baseball fans of all ages, particularly older players who may not have been interested in video games before, but can identify with this traditional game.

TG sticks it to Atari computers

A brand new joystick for the Atari computers was unveiled by TG Products during the recent CES.

The "Enjoystick," model TJS-400, is "the first joystick designed and contoured to fit comfortably in the palm of the hand," according to Don Geyer, firm spokesman. The lightweight joystick is also ambidextrous, meaning it has a fire button on one side for use by players who are right-handed, and can be converted for use by left-handed persons by simply flipping the button to the other side.

The joystick also features a self-centering control stick that operates so smoothly that it can be used for hours without causing fatigue.

Months of research, designing and testing went into the development of this controller, according to TG Products: "The designers were sent back to the drawing board several times because we weren't satisfied with the results. But even as we put the finishing touches on the joystick, we knew we had a winner," said Geyer.

The new joystick is compatible with the Atari 400/800/1200, the Atari 2600, Sears Video Arcade, Commodore 64 and the NEC PC-6000. Model TJS-400 is now available with a suggested list price of \$34.95.



Update on big doings, formats, games at CBS

CBS Electronics offered 16 new video games at the Summer Consumer Electronics Show. Games are available in six formats: Atari 2600/5200, Intellivision, ColecoVision, VIC-20, Atari 400/800/1200XL. In addition to titles from Bally/Midway, Exidy and Kay Enterprises, CBS will offer three internally developed games. Two of these games use the "RAM Plus Power Chip" expanded memory technology.

Owners of the 2600 can look forward to eight new titles from CBS Electronics between June and December. Four use the RAM Plus Power Chip and two are packaged with a free Booster-Grip Joystick Adaptor. The eight new titles are:

SOLAR FOX, with 26 patterns, including challenge racks and a hidden code word. **TUNNEL RUNNER**, sets the player in a 3-D maze full of monsters and dead ends, then dares him to escape. Two game versions with multiple progressive difficulty levels. Both shipped in June.

BLUEPRINT, shipped last month, puts the player's memory to the test in a fast-paced race to save a damsel in distress and uncover the secret password. **WINGS**, shipping this month, puts the player in the pilot's seat of a futuristic jet fighter. This game includes a free Joystick Adaptor.

Three games are scheduled to be shipped next month. **KICK-MAN** is a dizzying game of speed and dexterity. The player controls a clown who cycles back and forth on a precarious unicycle. As balloons rain down, he must catch them on his head or kick them up

and try again. **TARG** puts the player's stamina and skill to the test as he attempts to destroy the invading Targ ramships before they destroy him. **OMEGA RACE** challenges the player to clear the field of Droid ships, Vapor mines and other Omegans, and then face new challenges. Comes with the free Joystick Adaptor.

With the July release of five titles, CBS introduced its line of video games for the 5200. The first five titles are: **WIZARD OF WOR**, **GORF**, **BLUEPRINT**, **MOUNTAIN KING**, **K-RAZY SHOOT-OUT**. These games were originally available for other Atari systems. They will be followed by six new titles in the fourth quarter, all for the 5200: **OMEGA RACE** (late September), **SOLAR FOX**, **WINGS**, **MADDEN FOOTBALL**, **SATAN'S HOLLOW** and **DOMINO MAN** (October).

Seven games for the Atari home computers (400/800/1200XL) will be released beginning this month. **BLUEPRINT** and **OMEGA RACE**, shipping this month, begin the parade. Five additional titles for this format will ship during the fourth quarter: **WINGS**, **MADDEN FOOTBALL**, **SOLAR FOX**, **DOMINO MAN**, **SATAN'S HOLLOW**.

Eight titles are coming from CBS for Mattel's Intellivision: **WIZARD OF WOR** and **GORF**, for July; **BLUEPRINT**, **SOLAR FOX** and **OMEGA RACE**, for August. During the fourth quarter, CBS will release **WINGS**, **MADDEN FOOTBALL** and **DOMINO MAN**.

CBS Software announced August availability of **MATCH-WITS**, a chal-

lenging game of memory, logic and strategy, for the IBM PC and the Apple II+ and IIe. On disk for one to four players, this game actually lets players program in additional files of their own devising.

Players of all ages must draw on their mental storehouses of facts in any of six categories: words, sports, famous people, multiplication, cities and animals, to match fact-pairs and uncover pieces of a rebus or picture puzzle. Whoever can identify the puzzle first wins bonus points. There are three random-accessed rounds in each of the six categories and 18 puzzles to identify.

This family game not only teaches while it entertains, but also involves the player as both participant and creator. Players can add 16 pairs of facts for new rounds in each category, or they can create entirely new files of fact-pairs in new categories. A clear instruction book offers suggestions for new categories and explains how to program them into the computer's memory.

MATCH-WITS carries a suggested retail price of \$29.95.

New too, for the Apple II+, IIe, and IBM PC from CBS is **CHARLES GOREN: LEARNING BRIDGE MADE EASY**, the first truly tutorial bridge program, in two popular home computer formats. Developed by Charles Goren, internationally known bridge expert, this game is available on disk. It teaches bidding, including such facets as hand evaluation, opening

Continued on page 37

What's in a name . . .

A name represents an identity. It symbolizes a being. A name defines. It characterizes. Names have the power to enhance the intrinsic properties of an object. They just as readily limit and constrict. Names are so important that no person, place or thing escapes without having one.

The magazine that you have known and loved as *Arcade* has changed its name. Not because the content, character or focus have changed, but because the name became much smaller than the entity.

Since the beginning of this year, *Arcade* has consistently relied on a subtitle for fine distinction and specific definition: "The Electronic Entertainment Magazine." That subtitle seemed to more accurately describe the publication than our given name. Still does.

What could we do? Change our name to protect the image. *Electronic Entertainment* makes its debut as a name this month. The magazine itself is virtually unchanged.

Electronic Entertainment as a name most accurately reflects our general appearance and personality. We are now, and have been since the beginning, an innovative, unique and unusual publication. No run of the mill stuff here.

We assure you, that position will not change. We are proud of our classic styling, our sophisticated mien, our journalistic expertise. We are well aware that we were the first magazine in the field of video entertainment to combine the coverage of game systems and home personal

computers in one attractive, lucid package. Everyone has been trying to catch up.

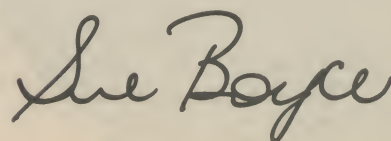
Our reasons for change are uncomplicated. We want to reflect, as completely as possible, the selective and discriminating audience we appeal to. Did you know we have been called the "only trade journal for consumers?" There are reasons for that.

We are not garish, nor are we garrulous. Neither insipid nor superficial, we. *Electronic Entertainment* is a serious publication for the discriminating individual, and as such we have a responsibility to our audience.

We inform, we enlighten, we elucidate. We are very serious about our good times. Our focus is the intelligent dispensation of information—the sharing of knowledge.

Admit it, there's a lot going on in this industry, a veritable "hotbed" of activity, so to speak. It's easy to get lost in the shuffle. *Electronic Entertainment* makes a great user's guide.

So, take the time to become reacquainted with an old friend, sporting a new name. *Electronic Entertainment* says it all. A magazine by any other name is just, well, a *magazine*.



Sue Boyce, Editor



What a shocking development! Dirk the Daring receives an eye-opening jolt from a sinister chair in yon throne room, during the nonstop action of DRAGON'S LAIR. Arcade fans now have the opportunity to help Dirk improve his somewhat tarnished image as a hero in this wildly entertaining laser disk video game, an arcade first.



Inside

The Dragon's

Do You

by Sue Boyce

Trust me. Nothing I can tell you about DRAGON'S LAIR will prepare you for the reality—absolutely nothing. So, I reveal what I know and what I have found out, with this disclaimer in mind.

Like the so-called "blockbuster" movies of summer, DRAGON'S LAIR is being turned loose during the three month hiatus from academia. Arcades will never be the same. A revolution within a revolution has begun.

Actually, the beginnings took place almost three years ago, at a place called Advanced Microcomputing Systems in California. That was when Rick Dyer began to mentally manipulate what was only the germination of an idea for a new video game. What he had in mind was a realistic adventure theme, populated by personably appealing characters and highly interactive gameplay.

While pondering the possibilities, Dyer and crew cogitated on the feasibility of combining two currently disparate technologies—computer and laser disk. The potentials of such a combination seemed limitless. The question became how best to incorporate the theories into a marketable product.

The answer seemed to be, "live animation." Dyer and his group had a home game ready for final production, but they felt it was much too slow. They wanted it to move more quickly; they wanted it to become a complete "story-game;" they wanted the end product to be applicable for an arcade setting as well as in the home. They went to Don Bluth.

That was back in November of 1982. Don Bluth Animation had parented a

fully animated, feature length film entitled, "The Secret of NIMH." This brainchild was garbed in the nearly forgotten richness of classical animation, in the tradition of Disney, and opened to delighted audiences during the summer of 1982. The film immediately became a cult classic.

The artists and animators of Bluth Animation were more than ready to take on the challenge offered them by Advanced Microcomputer Systems. The gauntlet had been thrown. Time was of the essence. Bluth and his partners, John Pomeroy and Gary Goldman, went to work.

"We took one look at the game Rick Dyer brought over to us," says Pomeroy, "and we knew it had potential. But they were going to have to speed the game up a whole lot if they wanted it to gain any kind of arcade popularity. The writers at AMS began to really bore into the game. It was loosely based on a 'Dungeons & Dragons' premise, of the fantasy/mythological genre that is so popular right now. We were sure the appeal to the population was there in the basic story line, so we said, 'Well, let's start developing the characters and see what we can come up with.'"

What they came up with is Dirk the Daring. Tall, manly and blessed with impressive muscle bundles, Dirk is all winsome charm and benevolence. It's a good thing. The poor man has to put up with a lot. The lovely Princess Daphne, light of Dirk's life, flame of his candle, is as helpless and addepleted as she is beautiful. She has been captured by an evil dragon and is being held (against her will, of course) captive in the beast's dungeon lair. Guess who must rescue her?

"Our characters will all be somewhat like Dirk," says Pomeroy. "We want completely identifiable characters because the players will want to relate more to them. We want high levels of involvement."

"In DRAGON'S LAIR, that individual is Dirk the Daring. He's well-meaning, but dumb. Silly, and somewhat stupid. He gets himself into really horrendous situations, and you have to get him out."

"The humor is integral to this game and its gameplay. We've even made the deaths amusing. Some might feel the game is graphically violent, but we look on it as a sort of 'Raiders of the Lost Ark' theme. Things are coming at you so often, so fast, that you must be on the run constantly."

That's about the same pace Bluth's group set for itself when it signed on to produce the animation for DRAGON'S

LAIR. Says Goldman, "We actually didn't get right down to the production aspects of the project until January—that's when we began working full-bore on it. We worked literally nonstop for about six weeks."

Finally, Bluth got to a point where they were ready to show a nine-room version of the game at the AOE show in Chicago. That was in March. "We were really scrambling," says Pomeroy. "Everything was rolling."

"We rushed to put everything we had on the laser disk, then stood back and said, 'It doesn't work!' It didn't have the gameplay we had anticipated. It wasn't clear. So, we pulled away six of those rooms and took our game to Chicago with only three working rooms."

Even with this truncated, flawed version of the eventuality that is DRAGON'S LAIR, the game was an impressive success. This was no small accomplishment, considering the fact that most of the participants at that show are gaming experts, usually jaded, skeptical, and extremely difficult to excite.

People crowded around the machine housing DRAGON'S LAIR. Most had never before seen such amazing graphic realizations on the screen of an arcade game.

"That's one of the main reasons why we were approached by AMS," Goldman remembers. "The president of their company saw 'The Secret of NIMH.' He was very impressed by the full animation and special effects, as well as the environments we had created in the movie. He was hoping we could duplicate some of that quality and incorporate it into his game. DRAGON'S LAIR is the first arcade



Missy Sutton shows off the game machine banner and control board for DRAGON'S LAIR, the first truly interactive video arcade game using laser disk technology at a state-of-the-art level. This game banner and control panel are completely interchangeable, as well as replaceable, enabling arcade owners to switch signs as they switch game disks—all through one machine.

Lair— Dare?

game to use the classical, full quality animation like this.

"We're not just working with two dimensions here, we've got three. We take the player/viewer right into the monitor. It makes the player feel like he/she's actually part of the game environment; making the maneuvers that will either defeat the purpose or rack up another couple dozen points.

"I think, as a matter of fact, that this game will make a lot of money from people who more or less just watch the game—getting killed doesn't stop them! Later, when they finally get into the actual gameplay itself, into the maneuvering of the character, that's when it'll all come together for them."

The smile of John Pomeroy, a partner in Bluth Animation, belies the complex and time-consuming process of animation, especially the classical style that this group produces. Here John refers to one of the initial scene boards for the next project, a laser disk video game about a space hero. Each scene must be individually drawn, then put in exact sequential order and logged precisely.



What'll it be? Mushroom, mocha, oak, peacock or pickle? These are just a fraction of the colors available to the artists in Bluth's group. There's blueberry, bisque, banana and brick, as John demonstrates. These paints must match when applied to the scene cels, a not-so-small task.



Don Bluth explains the player-to-game relationship this way: "We feel that DRAGON'S LAIR provides several advantages that video games heretofore have not furnished. Because of the human shapes and the elaborate, full artwork, we feel the game is easier to watch for extended periods of time.

"With the three-dimensional drawings, the conflicts and threats seem closer to actual human experience. Also, the viewer is constantly being trained to be wary of the innumerable threats that surround him. In these ways, the computer ends up giving more back to the human.

"We felt the combination of animation and computers is a natural. Our entire aim was to combine them in a manner that would be popular while, of course, maintaining the high quality of classical animation artistry which we have made our hallmark."

Based on the tremendous response to the game in its most primitive stages, the Bluth associates decided to get right back into it as quickly as possible. Victor Penman, the writer of the game, began frequenting the Bluth facilities, along with a couple of other AMS artists.

The creative people from both groups all sat down together to brainstorm DRAGON'S LAIR. Story is, no one left the conference table for four straight days. At the end of that period however,

these talented individuals had completely redesigned the game.


The results were (and are) amazing. Three or four screen boards became 38 separate rooms. The "clear and present danger" confronting the main character/player now occurred about every half or three-quarter second!

"If a player became adept at playing DRAGON'S LAIR," notes Pomeroy, "and he or she could get through it without any deaths at all, I still imagine it would take six or seven minutes to get through the thing. If the player uses up all the deaths (plans now are for three to five deaths), he/she could conceivably play the game for 15 minutes.

"Entertainment and longevity are very important factors. This is a 50-cent game, which is good for the arcade owners. They want something that will remain popular but not tie up machines for an inordinate period of time. They need rollover. Quarter games may go on for 25-30 minutes. Fifty-cent play will only tie up a machine for 10-12 minutes on the average."

Based on all these needs and projections from various studies of arcade and home gameplay, Bluth went to work. They pulled all the stops on everything they possibly could in the field of animation, in order to make this a stand-out game.

Since one of the major factors under consideration was to make sure players have personal identification with the character on the screen, the animators incorporated all the favored video game action patterns.



The walls in the office of John Pomeroy are covered with artistic renderings of game action in the style of classical animation. As he points out the initial steps in the technically intricate process of animation, John refers to a storyboard of the next Bluth-animated game, a space encounter of another sort altogether.

"We noticed players enjoyed games in which the character swings from vines and ropes," says Goldman. "Just swinging across vines seemed to provide an ongoing challenge. So, we have two rooms in DRAGON'S LAIR where

swinging on ropes is the action focus. The difference here is that our ropes are on fire. The player must choose to have Dirk let go of the rope and fall into the abyss, or burn his hands until he lets go and falls into the abyss."

And that's just *one* of the challenges. In the story line, Dirk fumbles and bumbles his way through a veritable labyrinth of sub-castle dungeon in order to make his dutiful way to his lady love. How clumsy our dauntless hero is depends entirely upon the skill of the individual player at the controls. Threats are constant.

Each of the 38 rooms contains monstrous, mystifying, mind-wrenching challenges to Dirk's progress: There's a unique suit of horse armor that can't seem to stay earthbound—that's the Flying Barding; there's also the Robot Knight to be dealt with; there's a Flaming Sword, a Giant Chicken Foot, the dreaded Acid Creature, the Knight and Light, the Mudmen, the Magical Orb; and if that's not enough to get you involved, how about geysers, tilting floors, boulder trenches, goblins, water-creatures, bats, skulls and slime—just to mention a few?

In order to make it out of any one of the multitudinous rooms, The player must learn how to either elude or van-



Making sure that everything in each picture is the way it must be, John goes over them, one by one. Here he lifts one of the transparent overlays, or cels, to bare the essential background elements of the scene. Additional elements are painted onto the overlays to give the depth of field, the perspective and the actual movement to the scene.

quish each foe faced. Not only the length of the game, but the outcome as well, depends solely on the skill of the player in making these decisions.

Just so it won't be a cinch, says Goldman, "We've constructed our game so that out of the 38 rooms, eight play in the opposite direction. You might have a left-handed player who is able to make all the moves to the right fairly easily and quickly, but a quick switch to moving left will cause a direct decrease in immediate skill level.

The programming design specified placing the simpler aspects of the gameplay up at the front of the program; to allow the player to get used to the way the game flows. Proceeding further into the game however, players will find consistent success elusive, at best. The full game is a structural wonder.

"We're a feature company," Pomeroy told us. "We're used to dealing with absolute continuity. When we start getting to the technical part of these projects, all sorts of complications set in. Continuities in our arcade game projects are strange; we had to have three or four resolutions of conflict during just one scene. The way we put it all together in terms of continuity, will have to remain our secret, because that's part of the patent."

Interestingly enough, the Bluth group had an economic reality to consider. They were forced to find shortcuts in many areas, areas where no previous role models existed. And, they had to make it all work, on budget, without sacrificing any of the quality they felt was integral to the success of the game.

"Our task was to create the best possible visuals, for the least possible amount of money," comments Goldman. "I think we surprised even ourselves. We came up with some very impressive special effects—some visuals that I believe surpass even those in 'Secret of NIMH.' The water, the fire, the lava, the mud, all of these are superb, visually. They are beautiful to watch during the game."

The format for DRAGON'S LAIR is essentially that of an interactive computer game. What makes it so completely unique is the graphic representation. Dimensions are expanded in every direction, totally unlike video games most consumers are familiar with. According to the producers, everyone who views the game at various electronics shows, wants to know one thing: How do you get graphics like that out of a computer?

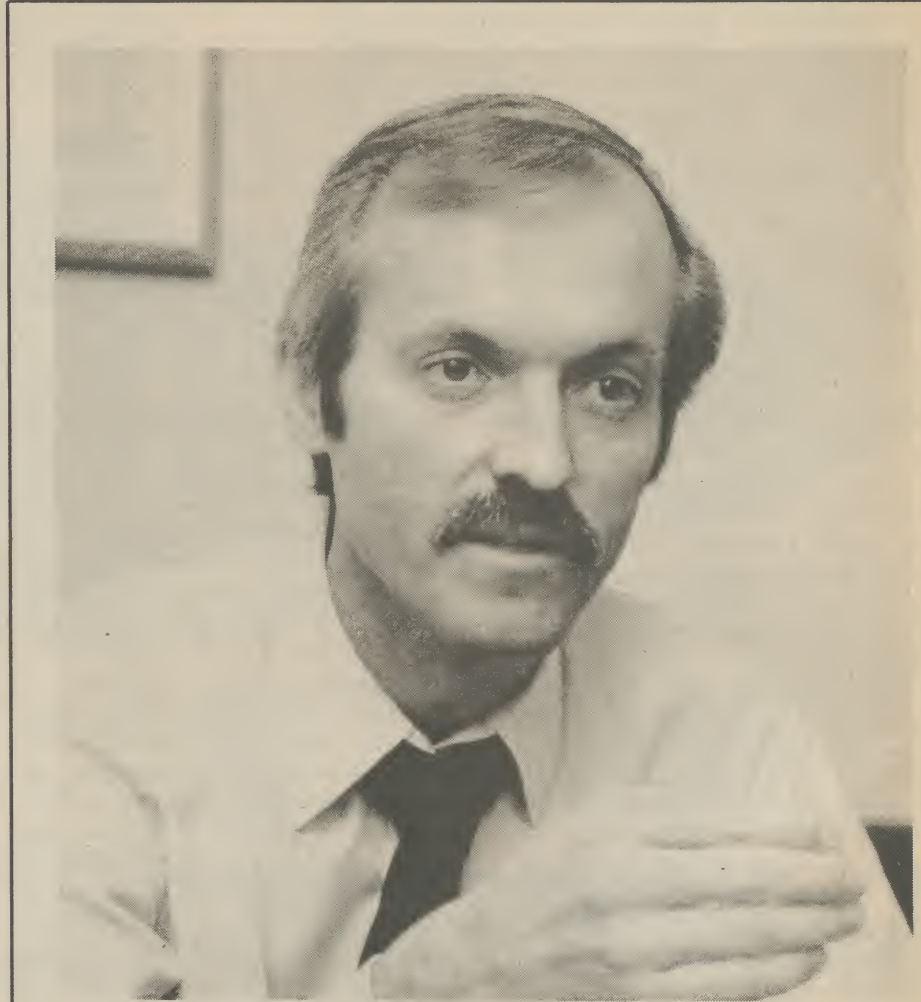
The answer is, you don't. What Bluth

did was to make a film—a fully animated, richly robed, visually arresting game experience.

DRAGON'S LAIR even incorporates sound to a degree unheard of in current arcade circles—twelve tracks of sound effects, two tracks of music, and a single track of dialogue. The stereophonic sound system is installed in the console itself. While you play the game, you are

aurally treated to sound effects for every adventure, every room.

Comparisons to any other video game are moot. This game is a full action, *thinking* game. Challenges in the forms of life-threatening circumstances crop up so quickly that the player must be constantly on top of the action, anticipating the next move before the initial one is made.



Who is Don Bluth?

Don Bluth, animation producer, was born in El Paso, Texas, the second oldest of seven children. Six years later, he and his family moved to Payson, Utah, where Don grew up milking 24 cows every morning, picking tomatoes for school money and dreaming of one day becoming a Disney animator.

"On Saturdays," Bluth says, "I'd ride my horse to the movie in town and tie him to a tree while I went in and watched the latest Disney film. Then I'd go home and copy every Disney comic book I could find." He never took art lessons.

When he was a senior in high school, his family moved to Santa Monica, near Los Angeles. After graduation, he landed a job as assistant animator at Disney in 1956 and worked under veteran animator John Lounsberry on "Sleeping Beauty."

After a year and a half, he grew restless and left Disney. "I was, I think, too young to face a life at the animation boards," he says. I needed to get out, to see some of life."

Don spent some time in Argentina, then returned to the United States and college. He graduated from Brigham Young University in Provo, Utah, with a

"Oh, it's fairly easy at first," says Pomeroy, "but it gets a lot more complicated as you go on. Gradually, the 'window' (the length of time a player has in which to make a decision) will get smaller and smaller. The player has an increasing number of articles to contend with in a decreasing time frame.

"Since the threats come so quickly, your character dies each and every time

you make a decision outside of that 'window.' In other words, you cannot make a move until your mind and your eye tell you you're in danger. Then, you hit the button."

Control is an essential ingredient. Merely holding the action button down and consistently moving the joystick to the right, may seem like a logical option but it's unquestionably suicidal. It just

won't work to your advantage.

The player may have only one correct choice to be made in any given circumstance. If any other choice of action is made, the hero is lost—he falls into a deep pit, is eaten up by flames, falls to the many-tentacled thing, or disintegrates as acid crawls all over his body.

"The difference here," explains Goldman, "is that we have a lot more control of the game in animation. Our entire concept here, even though we have made a video game, has been to create what we refer to as 'movie participation.' We've gone for audience appeal. Animation speaks as symbology.

"In live action, such as a movie, it is absolute. It may be hard to put yourself into the position/role of the character. You can watch what's happening, but you only watch. Animation lends itself extremely well to this particular medium—much moreso than live action.

"I do know that some companies are approaching this thing with live action. Sega has a game called, ASTRON BELT. It combines some elements of laser and computer technology although not like ours. I understand the game screen on theirs can go black for anywhere from one to three seconds, or longer. The only black in our game occurs during the death scenes. If you play the game correctly, you'll have absolute continuity."

According to Goldman, the fact that DRAGON'S LAIR is "100% fully hand-made animation" cannot be overstated. The only computer element involved is the programming. "Once we deliver the tapes to the computer entity," he says, "they will feed that into their software program."

The software is basically accesses. It was essential for Bluth artists to develop an extremely complex set of continuity phases, based on the original conception of the game as AMS wrote it.

"They let us know how they wanted the accesses to be," says Pomeroy, "and we redid this part three times during our production schedule of the game itself—setting the continuity for easy access. When it leaves our hands, that access has to be clearly defined.

"Then it goes from us to them and the programmers get involved again. They 'tweak' it the same way they would a regular arcade game, depending on whether they want to open or close the 'windows' or make gameplay easier. They could even open the windows in order to give the player a longer time to decide on a move."

The Bluth partners had a dream

major in English. Afterward, he and a brother ran a little theater in Culver City, California, during which time Bluth picked up a few pointers on resourcefulness.

"Once," he recalls, "while we were performing, someone in the cast realized we had just done the third act instead of the second. We panicked. The audience didn't seem to care, but they did expect a longer show. They were all still sitting there, waiting. So, we made up another act."

In 1967, Bluth decided his future did indeed lie in the art of animation. He joined Filmation Studios as a layout man. In addition to doing what he felt was humdrum work on Saturday morning kidvid, Bluth formed a touring young people's singing group called "The New Generation."

In 1971 he returned to Disney and joined their new training program for animation. He animated on "Robin Hood," released in 1973, and "Winnie the Pooh and Tigger Too," a featurette released in 1974. He was directing animator on "The Rescuers," released in 1977, and director of animation of "Pete's Dragon," a musical fantasy combining live action and animation, released in 1977. He produced and directed "The Small One," a featurette released the next year at Christmas, and was animating on "The Fox and the Hound" until he resigned in September of 1979.

It was in 1972 that Bluth and fellow animator, Gary Goldman, started working nights and weekends in Bluth's garage on their own animated featurette. Another animator, John Pomeroy, joined them in 1973, and soon others came, interested in learning and restoring classical animation techniques that they felt had fallen short in the later Disney films. They scrapped their original venture, but started another called "Banjo, the Woodpile Cat," which they finished after a much-publicized departure from Disney in 1979, when they and eleven others walked out in a dispute over creative quality. "Banjo" later aired on ABC-TV.

After completion of "Banjo," Bluth and his crew moved into their own Studio City studio, and produced a two-minute sequence of "Don't Walk Away," a love song performed by the Electric Light Orchestra in Universal's film, "Xanadu."

Then Bluth began to work full time on his dream: a full length animated feature done with the richness of classical animation. The film, "The Secret of NIMH," took two and a half years to complete and featured the vocal talents of such stars as Peter Strauss, Dom DeLuise, Derek Jacobi, John Carradine and Hermione Baddeley. Bluth was producer, director, layout designer, story adaptor, storyboard artist and animator on the film. MGM/UA released the film throughout the United States and Canada in the summer of 1982. It is still in foreign release.

Just prior to the release of the film, Bluth began to question ways to unite animation with computer technology in a way that would be popular. Several attempts have been made, none particularly successful, and Bluth felt it was an idea whose time had come. "It was the next logical step in the progression toward the future," he said. "Computers are here to stay and they have much to give us if we help them."

DRAGON'S LAIR, an interactive movie/game is based on an idea and technology by Rick Dyer of Advanced Microcomputing Systems. After four months of production, a record-breaking length of time for 27 minutes of full animation, the game is finished and ready for arcade debut. The game is manufactured and distributed by Cinematronics of El Cajon, California.

Bluth is a member of the Shorts Branch of the Academy of Motion Picture Arts and Sciences. ■

when they took on the LAIR project. It had to do with the rebirth of classical animation in short and full-length feature form. The men at Bluth felt like this just might be the shot in the arm that the field needs. Success of DRAGON'S LAIR, and subsequent similar introductions will hopefully enhance the currently narrow boundaries of the animation market and bring more money into a slumping giant. An additional benefit of that success would be the possibility of developing a talent pool from which to draw for future film efforts.

"Back in the Fifties," notes Goldman, "they stopped a program of Disney's called the Shorts Program—a program that Disney, more than any other group, was supporting. It affected the entire industry more than it did Disney, however. The six-minute shorts they released all during the Thirties and Forties to theatres, turned over a profit.

"In the Fifties, it got to the point where the money they were putting into the Shorts Program was not bringing in any returns. The general demand for the product diminished the market. The Program was really a precious commodity, because it was used primarily

to develop talent as well as produce feature films, and make money to keep the industry going."

That type of creative test-tube hasn't existed for the past 25-30 years, hence the paucity of classical animated features. The fully animated arcade game may be the thing to revitalize the field of animation and bring it back in a new form. Successive successes are almost certain to increase the flow of dollars into the animation industry.

"The initial concept in this particular case, just happened to come from computer people," says Pomeroy. "The lead-in to animation seemed a natural, mostly because of its broad audience appeal. When 'Secret of NIMH' hit the market, everyone was astonished. They just could not believe that the level of quality in the film was possible today. They thought animation was essentially dead.

"So, what we wanted to do (what we hoped to do) with DRAGON'S LAIR, was to revitalize the interest in full animation—not like the garbage you see on Saturday morning television. We believed we could create an interest in the arcade audience, where people from eight on up can see this kind of anima-

tion again. Let's face it. Some people have never seen anything like this. Others have forgotten what full animation can be like. People see this game and say, 'Gee, why don't we ever get any animation like this? Doesn't anyone care anymore?'"

Caring comes down to dollars. The more money an arcade game makes, the more money a company is willing to put into it to assure that it gets the leading edge. Right now Starcom, the perpetrator of DRAGON'S LAIR, considers this to be their primary interest—having the edge on the market. This means making sure that every game made in this format has to be "better" than any other game already out. Graphics and player interaction are two of the more formidable weapons in this video war arsenal.

Artists at Bluth are already well on the way to completion of the *second* fully animated laser disk video arcade game, a humorous space game starring a lovable hero by the name of Dexter. This Dexter is somewhat of a nerd. The girl he adores is a dip. That's an egalitarian relationship for you.

The challenges to love are everywhere. Dizzy Dame couldn't give a hoot



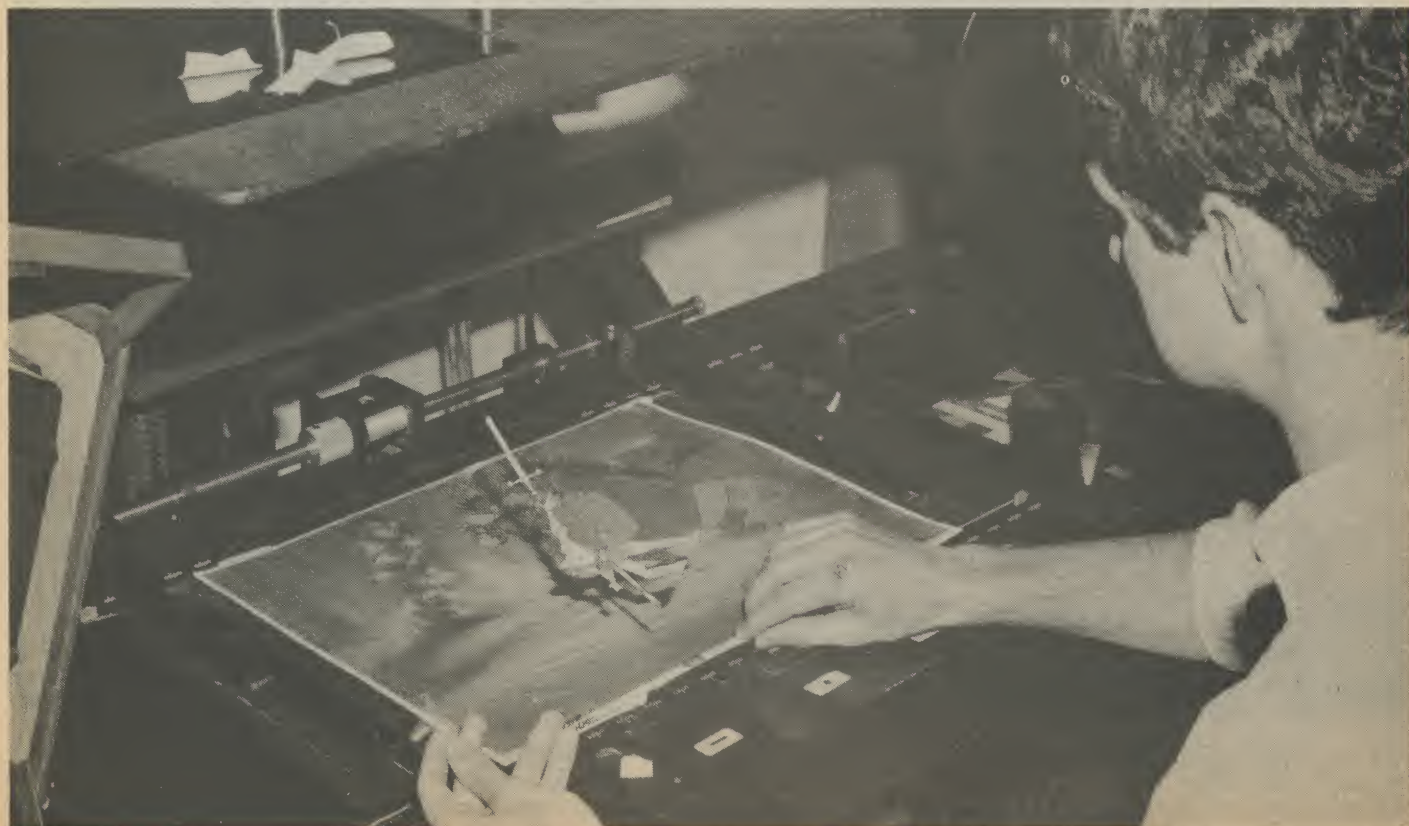
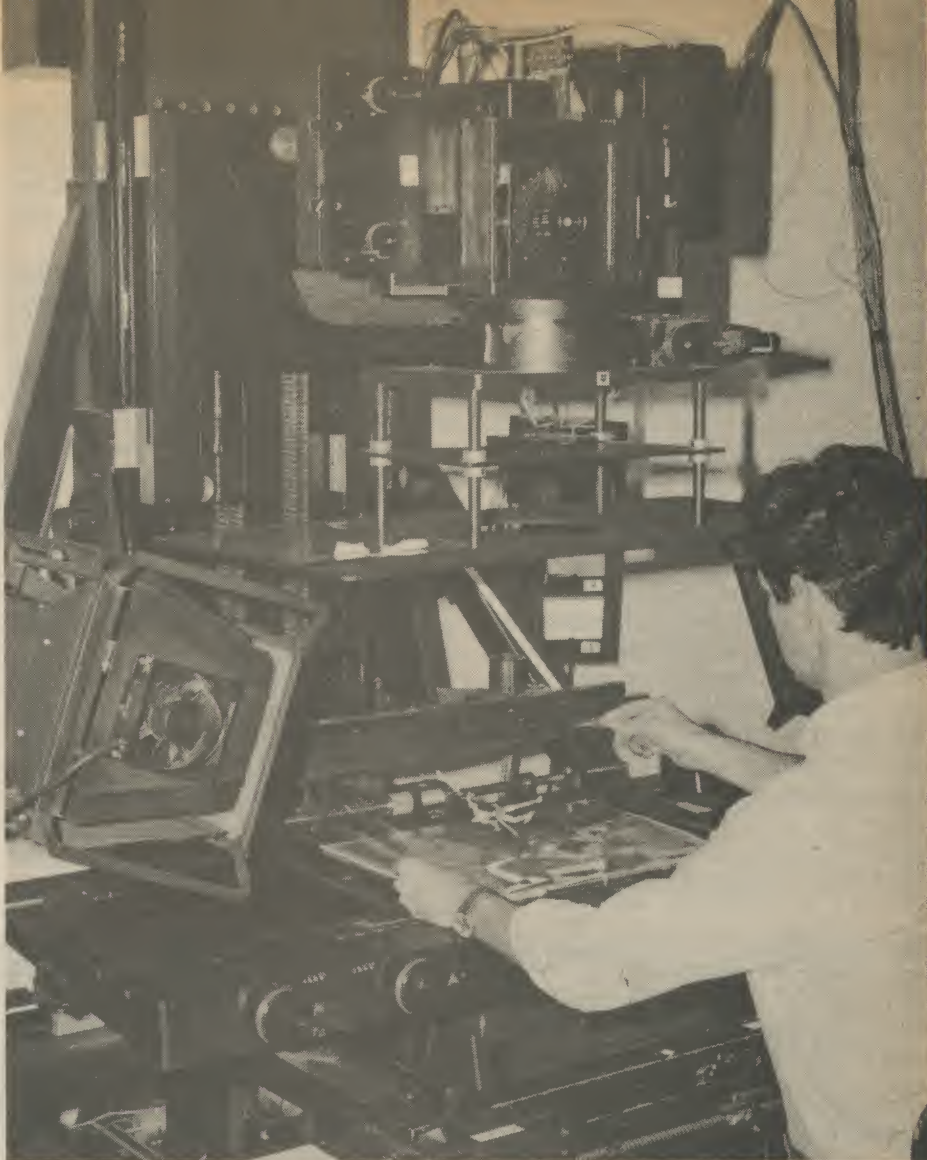
There are ways to make that fire look hotter and that dungeon even more dank, dark, dismal and dreary, as these artists can attest. However, it's a lot of work. The two artists pictured here are enhancing graphic representation by adding special touches and matching colors.

in a holler about Dexter. She does however, pine for Super-Dex, the twit's alter-ego. Super-Dex appears at certain moments during the game, when the player has scored a certain number of points. Then, the nerd changes into a dream hulk, bonus points are scored, and Dizzy loves Dex once more.

This game, we are informed, will be unlike any other video space game anywhere. We believe that. Coming on the heels of the frontrunner, this second Starcom offering will already have a name to live up to. The good news is that it won't take nearly as long to produce this game as it did DRAGON'S LAIR. Now that Bluth has a definite format from which to work, and a pat-

(Right) A Bluth animator positions one of the screens of a game scene onto the platform of the camera used to transfer the images to film. Each screen or scene, is fastened into place with the register pins. The transparencies, or cels (short for celluloid), are placed on top of the background art and the camera takes a picture of it. Each picture layout must be photographed individually, cel by cel.

(Below) John Pomeroy further demonstrates the animation process, as he sits at the camera responsible for transference of all the individual images onto actual film. Here he places one of the transparencies (cels) over the background scene. These cels contain the images which will ultimately appear to move when the process is completed and the action is projected for the viewer.



ented method for production, the actual time it takes to get the game from concept to consumer will be about 18 weeks. LAIR took six months.

Bluth hopes to have a new game ready for arcade owners every three or four months. Hopes are that the first and second games won't even be cold by the time another one hits.

In order to lessen the chances of premature obsolescence, Starcom people are using aluminum rather than plastic-backed disks for their laser disk games. The disks are interchangeable and last forever—literally. Arcade owners could conceivably purchase entire libraries of video laser disks. They could keep them on a shelf in a back room somewhere and just rotate the crop as the seasons changed.

Another interesting fact is the disks are interchangeable within one console. So, if the arcade owner made the initial investment of say, \$3700-\$4000 for a unit, another outlay of only \$1000 would buy an updated game disk, new game board, new marquee and decals for the side of the console.

These developments necessitate a new type of security system. Starcom builds security checks right into their games. They also equip their products with alarms that inform the arcade personnel of mechanical malfunction.

Scuttlebutt has it that Starcom is not the only company experimenting with the use of laser disk technology for video games. Several other companies have already approached Bluth Animation. Starcom will continue to have somewhat of an edge, considering they have already dug the trenches. They know how best to combine dirt and shovel. They know the kinds of things that can, and more than likely will, go wrong. They have discovered mistakes in their applications of the technology, and corrected them.

"Each succeeding game we make will be a better game," Pomeroy says. "These upcoming games will have the ability to 'branch,' meaning there are any one of a number of different ways for the player to go through the game.

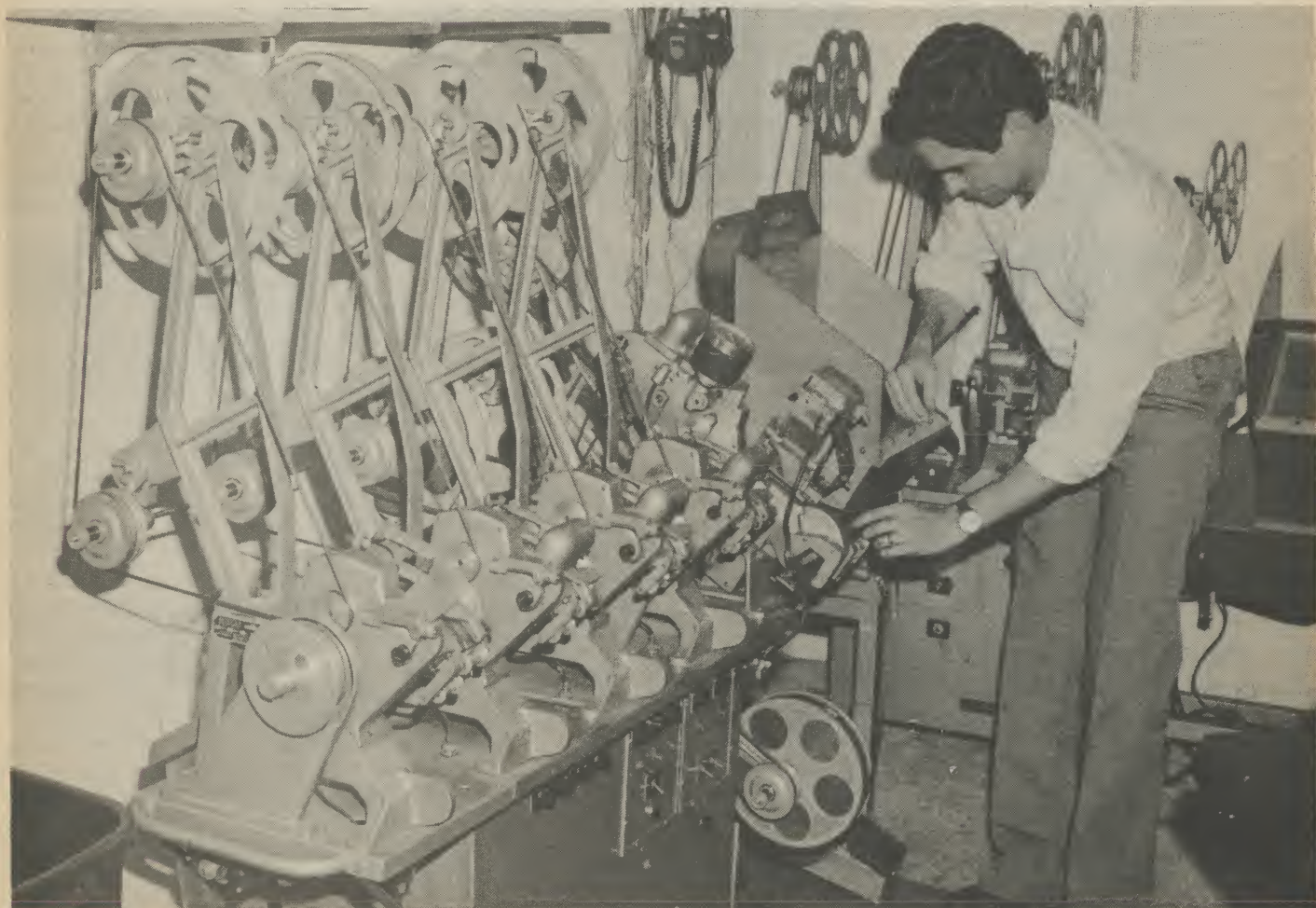
"You'll never play the same game twice, no matter how often you go

through it. The games have random access. You could pay now and play the game one way, then pay again and play it completely different. All the rooms come at you in a different order. The only thing that'll hook you up to the storyline are the first and last sequences."

The mind reels. So much to absorb, to think about, to look forward to. One thought, flashing by, suddenly becomes lodged in the gray matter—home laser disk players for video games. Hmmmm.

Not only does the technology exist right now, for producing home game systems based on laser disks, one extremely prominent company in the video entertainment industry has *already purchased* all the home rights. That company, a monolith in the industry, has indicated that it has the technology to put a laser disk player into the home by Spring of 1984, for less than \$100. It would be marketed as a module for the company's existing video game system. Slick.

According to terms of the current con-
Continued on next page



Pausing to check out the film editing machines, John Pomeroy gives a general idea of the complexity of the process that leads to successful classical animation. The film sequences have been shot individually and are now ready to be edited together with sound tracks into a cohesive whole. The bottom of this room is the cutting room floor everyone has heard so much about. According to John, this is the final stage before placing the movie/game onto a disk.



CBS Update

Continued from page 26

bids, responses and rebids; and provides 100 especially selected hands for practice in play. The computer allows opportunities to make the correct bid before revealing the best answer and explaining it.

CHARLES GOREN: LEARNING BRIDGE MADE EASY is complete on one disk and comes with a 144-page book that teaches both bidding and play of the hands. The program, shipping this month, will carry a suggested retail price of \$79.95.

Comrex control

Continued from page 19

ble with the Atari 2600/400/800, VIC-20 and Commodore 64, the Sears Video Arcade and, with an optional adapter, with ColecoVision.

Additionally, the CR-401 ComMander is compatible with Apple and Franklin computers, and will be compatible with the IBM PC, TRS-80, and the Epson QX-10 computer, in the near future. This particular joystick is the first to provide precision analog control for the 2600, and is also the first to be

compatible with both high performance computers and the 2600.

According to Comrex execs, the joysticks are designed electronically and ergonomically to give beginners and enthusiasts the ability to improve their skills and to play longer with less fatigue. Both are designed for maximum performance by either left or right-handed players.

The deluxe ComMander retails for about \$44.95. It is shaped like a slimline, handheld telephone, to provide operator comfort and convenience. Recessed feet allow both palm of the hand and tabletop play. The CR-401 is an analog joystick. Action is the result of a single gimbal that actuates dual 100K potentiometers, one in each axis. Trimmable X and Y axes allow fine tuning of response from computer to computer and from player to player. With the self-centering handle, a player can select either free-floating or centered stick movements. Four discrete firing buttons have user-definable functions that permit personalized control. Snap-action microswitch buttons provide fast response and reliability. A coiled cord prevents wire tangle and is easy to store.

The CR-301, the standard ComMander joystick, is contoured in a square shape, with smoothly rounded corners to fit large or small hands or use on a table top. Firing buttons are located near the upper left and upper right-hand corners. The handle is mounted on the center of the unit and incorporates four microswitches that provide fast response and reliability. The joystick offers light, positive control for either fingertip or thumb. A coiled cord provides for convenient, non-tangle use and storage.

Software Review

Continued from page 37

troyed. This calls for quickly calculated cunning on the player's part.

Anyone remotely familiar with the video game by the name of VENTURE will experience a sense of intimate recognition when playing TUTANKHAM, but this one is just about as much fun. It should be, the gameplay is so similar.

Dragon's Lair

Continued from page 40

tract with Starcom, this mega-corp cannot produce anything for the home market until the arcades have been given a chance at the goodies. That's mostly due to the fact that the home market has put a fearsome dent in the fortunes of commercial arcades. So, according to those terms, it's "no-no" before one year, but "yes-yes" within one year. No cats in this bag, anymore.

"Maybe," muses Goldman, "this whole laser disk thing will catch on faster through full animation that just your regular, standard, computer-generated graphics. I mean, some of the games out now are cute enough, but they've lost their appeal because they are so limited. Even though you may have the illusion of control, that's all it is—illusion.

"What we're saying is, imagine being at your favorite movie, sitting in a special seat with all the controls at your fingertips. At certain, predetermined points, you can hit the button and change the action to suit you.

"You're the captain of the whole

Continued on page 41

COMMODORE 64 SOFTWARE

\$9.00 Per Disk Full of Programs

BLANK DISKS INCLUDED

Send Check or Money Order To

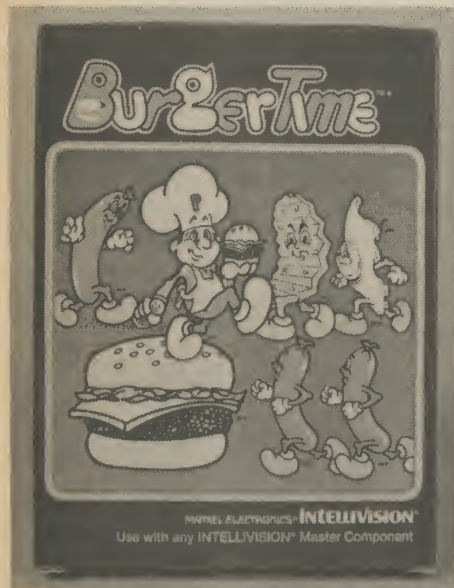
COMMODORE CONNECTION

11652 Valverde □ Riverside, CA 92505 □ Call (714) 689-7447

SOFTWARE REVIEW

Title: BURGERTIME
Licenser: Data East
Publisher: Mattel Electronics
System: Intellivision
Age Group Level: Youth-Adult
Suggested Retail Price: \$33

Topnotch entertainment in a video way. The home version for this game system is terrific. It's got everything a player needs most to have a good time, and it's got it in abundance.



The basic style of the game is vertical—a sort of maze, inside out. Graphics are brilliantly colorful, which is no small feat for a cast of characters that includes hamburger patties, lettuce leaves, hotdogs, pickles, eggs and buns. This one is almost as much fun to look at as to play, even though the screen is limited to the one on which the action is taking place and changes only if the level of difficulty dictates another screen.

The problem seems to be that Chef Pepper, main character in this silliness, must coordinate the creation of several hamburger sandwiches. While in the process of assembling the various pieces of this culinary fare, the chef must run up and down various stairs to the levels on which burger components are stored.

Obstacles abound in the form of various nasties and unsavory types. These scoundrels (pickle, hotdogs and egg) chase the chef without letup. The only way the chef can control the feisty foodstuff is with his pepper supply. So, mission number one is to scramble up and down around the levels of the kitchen

and assemble burgers as fast as chubby little legs can run. Mission number two, should you decide to accept it, is to take the nasties for a ride, racking up mega points along the way.

The initial appeal of this game lies in its inherent charm and simplicity. No loud raucousness, no constant fusillades of fire. Just amusing characters and seemingly simple tasks, complicated by the intervention of nasty nuisances.

Control is simple, too. That's nearly essential, since the game action itself moves along surprisingly fast. There's an overlay for BURGERTIME, but it may be quickly dispensed with, especially if the player is a regular Intellivision user. Essentially, the action buttons control the use of the dreaded pepper, while the disc plate controls the movement of the chef in any of four directions.

There are seven different levels of play (incorporating seven different mazes of ladders and platforms), through which the chase and race take place.

Simple as all this may sound, there are not going to be many successes without the use of finesse. Amassing mass quantities of points will require precise timing and careful calculation. Along the way, small bonuses appear to help the player make the most of the chase. It's a good time, this BURGERTIME.

Title: THE DREADNAUGHT FACTOR

Publisher: Activision
System: Intellivision
Age Group Level: Teen-Adult
Suggested Retail Price: \$34.95

The original dreadnaughts were British, a class of heavily armed naval battleships. The prototype was a ship known as the "Dreadnought" which, literally translated, means "fear nothing." The "Dreadnought" weighed 17,900 tons. It carried an armament of ten 12-inch guns and 24 quick-firing guns. It was so impressive that other heavily armed battleships of more than substantial size were also called by the name—dreadnaughts.

In this video game, the dreadnaughts in question are spaceships of enormous proportions. The premise is that a fleet of dreadnaughts have entered the

Milky Way galaxy, approaching the planet Terra. The player is the pilot of a hyperfighter sent to keep the dreadnaughts from accomplishing their goal of planetary destruction. The only thing that can stop the behemoths is the destruction of their vital energy vents.

This is ZAXXON all over again. The tiny spacecraft of the player must fly over the dreadnaughts as they approach the planet, which is to the left side of the screen. The surface of the dreadnaught moves slowly onscreen from the right. The fighter plane moves across the screen from left to right, just above the surface of the dreadnaught.

The complexity in this game comes more from the elaborate story and gameplan than it does from actual play. The fighter must destroy as many of the weapons on the dreadnaught as possible in a timed sweep across its face.

Meanwhile, the dreadnaught is not sitting idle. The fire is returned in earnest, and with deadly accuracy. There are five different classes of dreadnaughts, each one heavily armed. Only the weaponry that is visible at any given time is active. The rest of the weapons on the monster ship remain idle until onscreen.

There are seven variations of gameplay. The first is the easiest, and allows the player to practice necessary skills—no dreadnaught fire hits the hyperfighter in level 1. The highest level of accomplishment is labeled "impossible." The Activision folks are not being facetious about this part. There are 100 massive dreadnaughts on an all-out assault at this level. It might be a good idea to see your physician for a physical exam before trying the game at this level.

Control is tricky, but with practice is no problem. The disc is used to direct the hyperfighter as it speeds through space. Since such craft never come to a full stop, it is only possible to accelerate velocity in one of four directions, side to side or up and down. The upper action buttons fire laser bolts, the lower ones drop strontium bombs.

Each game begins with a backup supply of ten hyperfighters. Scoring values change according to the level of difficulty being played. Some of the targets require laser bolt attack, others require strontium bombs.

The similarity to ZAXXON is neither an enhancement of nor a detracting from the game action of THE DREAD-NAUGHT FACTOR, it is simply so obvious as to be worth note. The only essential difference is the fact that this screen does not scroll in a 3-D fashion. All in all, taking elements of play into account, this is an entertaining diversion of the average type. It is likely to appeal in the longer haul predominantly to a rather small audience of die-hards, but this group is likely to play it till the chip falls out.

Title: MATH FUN

Publisher: Mattel Electronics

System: Intellivision

Age Group Level: Child-Youth

Suggested Retail Price: \$28

Now, pay attention, parents! You might learn something important—something that will help your children learn.

This video game cartridge was one of the first of the educational type to be marketed generally in the early software wars. It does not lose its applicability with age; if anything, it increases in value.

Learning actually takes place in so many ways, it is difficult to comprehend all the diversification. However, one fact has been made abundantly clear to educators through the years, and that is that children learn better if they are allowed to learn “visually.” Not only better, but faster, with less frustration and resistance, and ultimately for a longer period of time. The same is true of adult learning.

Children enjoy spending time with this game, for as many reasons as there are ways of learning. The challenge of answering math questions seems a lot less intimidating when it occurs in a controlled game format, which is what MATH FUN actually is.

This game is filled with options. It is varied enough to attract both the solitary and the showoff. There are no slaps on the hand for mistakes and no redline slashes through the problems answered incorrectly. This is steady, positive, nonjudgmental education.

The overlays for the game controllers are simplistic enough for the player to use, whether or not he/she can recognize written instruction, because it consists only of the numbers one through

zero, a “clear” key and an “enter.”

It was a surprise to our staff to discover just how quickly complete game novices picked up on the sequence of commands necessary to control the selection of game type, number of players, and numerical key functions. For children not yet familiar with video game play (and, there must be one or two of those around somewhere), this is a great introduction. For the one with the thigh-sized thumbs at age seven, from playing disc-controlled video games, this will still be an enjoyable challenge.

The graphics are cute, an enhancement to gameplay. They do not stand alone as anything spectacular, but the focus of this game is much different from most. The characters are blocky, graphically—big deal. The apes are a great favorite with the players we tested this game with, especially as they dance their victory dance and move into the jungle offscreen (the apes, not the players).

The other animals are secondary to the game, even as visuals. Most players pay much more attention to the mathematical problem that crops up with the introduction of each animal than they do to the animal itself.

One of the nicest features of MATH FUN is the way in which levels of difficulty are specialized for the individual player. Playing at a level of competency assures success, and the more successful the player is on initial runs, the more likely he/she will continue to play and learn at increasingly difficult levels of capability and challenge.

Additionally, one of the two players in a duo game situation, may choose to play the game at a higher level of difficulty than the other. This gives a handicap to those mathematician types and smug parents who want the children to think the old folks still remember the tricks of math.

Although the player may need verbal and physical cues in the beginning, it won't be long before the presence of an adult in the game area will not only be unnecessary, it will be unwelcome.

We did find that the game we had to work with would randomly correct an already correct answer with another correct answer, thus counting one error where there was none. The problem was most noticeable on the higher levels, where one or two problems were con-

sistently counted as incorrect, even though the corrected version matched the input answer exactly. We're not certain if this is the result of wear or buglets in the program. Whichever, it did not go away, much as we tried to ignore it.

No matter. Mattel grants a 90-day limited warranty with the purchase of this cart, so if yours were to act up, you'd get a replacement. If anything is wrong, it will show up in that length of time.

MATH FUN is for the young people, but it should prove a boon to parents concerned about developing math skills in kids. Nothing could probably provoke a negative response from a child more easily than the command to “go read a book.” On the other hand, probably nothing elicits an affirmative response more readily than the directive to “go play that game.”

Kids are always looking for the easiest way out. This game is one.

Title: ICE TREK

Publisher: Imagic

System: Intellivision

Age Group Level: Teen-Adult

Suggested Retail Price: \$31.95

This is a play in three acts. For a video game that may not sound so unusual, but in ICE TREK the depth of the gameplay is surprisingly complex and distinctly unique.

The three screens do not occur in the story as three distinct games, but they play like three. The concept may be abstract, but is most appropriate in this case. ICE TREK is an intricate test of skill, a challenge of perceptions and a lot of fun.

The barest bones of the story are: boy saves world. Not bad, really. Sure beats the old boy saves girl routine that's becoming such a bore. In this case, the world is sort of a Viking myth in which humankind is perched precariously on the edges of an Ice Age. Pretty theatrical.

So it is that on the first screen, a little golden-domed skier emerges screen left only to be met headon with a rampaging herd of caribou. Whether he emerges unscathed or not depends entirely upon the talents of the person at the controls. If the player is able to move the character (Vali) through the herd without having to kill an animal

SOFTWARE REVIEW

in self-defense, a large vision of loveliness on skis appears topscreen with bow at the ready, then simply commends you with a written message: "Well done, mortal!" If you are, perchance, a caribou killer, then the same vision, a goddess of vengeance, uses the bow. She's very good at it, too.

Next screen, a sea of blue and tiny Vali standing on a white stub of a pier that juts into the waves. Clouds across the sky turn out to be huge white-shadowed icebergs, floating past like so many cubist designs.

Do not mistake the simplicity of the screen for the difficulty of the gameplay. Even at the first level of this game, the second screen is three times as difficult to get through successfully as the stampede on screen one.

A game such as this makes one absolutely yearn for precision controllers, for sturdy joysticks and fine-touch action buttons. Often, one feels as if using a blunted club on the various parts of the Intellivision controller might not be more effective than hands and fingers. Couldn't be much worse.

Until you get the right moves down and orchestrated properly, you'll be building ice bridges only to watch them being torn down, all night long. Someone will have to come close your eyes for you. This segment of the game has so many variables incorporated into the action that the possible combinations of hits, misses and positions seem infinite. When you get real good at this, you get to move on to the last scene.

And you thought you had problems before? This last act is a sleeper. Vali is at the ice palace and must torch it to puddles. No problem, you think. He has his magic firestick handy. Just a couple of things seem to hinder Vali's progress: the black crystals that are raining down on his head and the slick ice he's standing on.

Add to this dilemma the fact that control of the game character at this point is both complex and crucial, and you recognize a formidable challenge.

The various functions of the controller, the action buttons as well as the disc are detailed and complicated. They also vary for each screen. Gaining control will take a lot of practice and should provide hours of entertainment in the process.

Those of sound body and mind will not be adversely affected by this game. Those on the fringes, I'm a little worried

about. One of our reviewers is still in that darkened room with wide eyes glued to a monitor and this game on the screen. He's calling the icebergs dirty names.

What we're trying to say is that this is a lot of game. It seems to be a fine blending of machine and cartridge capability. The visuals are beautiful, the sound effects merely interesting—how *does* one recreate the sound of ice moving through water?

Those who take to this game will take to it for a long time. It's worth coming back to.

Title: TUTANKHAM

Licensor: Konami Industry

Publisher: Parker Brothers

System: Atari 2600

Age Group Level: Youth-Adult

Suggested Retail Price: \$25-\$30

Ahh, to be an archeologist, now that summer's here! Haven't you ever felt that way? The stirrings of a dusty interest in all things old and buried—not to be confused with a similar interest on the part of necrophiliacs. Now your whim may be indulged, in the playing of a video game for the scavenger in you.

TUTANKHAM is a game for one or two players and is joystick controlled. Of the eight basic game selections, half are for one player, the other half for two. The four levels graduate from the easiest to the toughest. The object of any of the game variations is for the player to score as many points as possible by recovering hidden treasures and defeating the denizens of the tomb.

There are four so-called chambers to be explored during any one level. Each of the chambers boasts a number of ancient treasures, all of varied value. Of course, there are also nests of scorpions, snakes, bats, jackals, lions and snapping turtles with which to contend, just so you won't get bored from simplicity.

Also hidden in each chamber is a key, the essential tool for getting the archeologist from one chamber to another. As soon as the key becomes visible, it should be taken if possible.

The intrepid archeologist is not without effective means of defense against all the horrors of the tomb, mind you. He (or she, it's particularly difficult to tell in this instance) also is equipped

with a laser gun and a laser flash. The first eliminates a threatening creature, the second causes all the vile things to disappear long enough for the hero to make a speedy exit.

There is a seemingly unlimited supply of laser power for the gun, but only three of the flashes available for use in times of trouble in tight spots. This means the player must be selective in use of weapons.

Time is also a factor in this subterranean search, as a time band at the bottom of the screen keeps track for you. Spend too long in any chamber and you wind up being a permanent resident along with the other vermin, as the ammo supply is depleted. This same supply is replenished in full at the entrance to each new chamber. Better learn how to get in and get out.

And then, what would an underground sarcophagus be without secret passageways in the walls? So TUTANKHAM gives them to you. The secret passageways are not marked out for you, as secret passageways never are. That's the secret, silly. But should you discover one of these passageways, it will aid you in escaping potential disaster. Sometimes the secret passageway is the only way to get through the maze.

The visuals are positively brilliant, as far as color, hue and tint go. The figures of all the characters are extremely small. A good many of the objects require healthy imagination on your part before they take on the characteristics of their intended identities, but most are at least recognizable as treasure or threat, anyway. The game screen is essentially the same for all levels of play, except that the basic configuration of the mazes changes through progressive chambers.

Sound effects have been incorporated into the game play, and do offer advance warning of the imminent appearance of danger in its many forms. As varmints and critters and other assorted pestilent types are about to spring from their nests, a whooshing sort of slurping noise announces the event. The rest of the sound effects are merely peripheral.

The action in this game is fast and furious, even though it is possible to pace yourself for maximum safety. Not all the treasures have to be gathered, and not all the creepy-crawlies des-

Continued on page 37

BURGERTIME Handheld, Mattel Electronics, under license from Data East USA, Inc., Hawthorne, California. Suggested Retail Price: \$21.

This game just goes to show you how many different sizes and shapes one entity might assume. BURGERTIME in any shape and form has winning ways.

Newly released by Mattel, the game-play of BURGERTIME has captured attention and quarters the nation over. Putting a solid champ into handheld format may not sound too risky to you, but it's a chancey deal. Obviously Mattel felt it worth the risk.

So do we. This mini version of the game is sort of a stop-gap measure. It stops the gaps between the other optional formats: people who do not have home game systems (and there are a few, contrary to popular belief); people who like to play the video games but don't enjoy the atmosphere of a commercial arcade; people with computer hardware but no game software; people with any or all of the above characteristics, who like their good times in a pack-a-party format.

When you have the handheld version of this game, any time is BURGERTIME time. This version is one that very easily goes anywhere. Not only the size is convenient. The sound effects are controlled by a switch on the front panel of the game, and can be turned on or off at any time.

The unit itself measures about 3¾"

long and 2¾"-wide. It is made of yellow plastic. The majority of the face is used to place the sound on/off switch, the ACL poke, the pepper (action) button, and a little itsy bitsy, teeney weeny joystick. The game screen in the middle of the face, is much taller than it is wide, and is positively bustling with figures.

The background screen display is a finely detailed rendering of the insides of a kitchen, complete with sinks, fridge, hanging pots and strings of salami and sausages. Ladders on both sides of the screen lead up and down between levels.

The next game layer of graphics consists of all the moving parts of the play: the scampering chef, pepper shaker in hand; an egg, a pickle and a hot dog, patrolling their assigned levels, one to each; the six individual parts of two complete hamburger sandwiches; the allotted number of pepper shakers and chefs.

While the game is not in use, the screen displays a demonstration mode, with the active characters in constant motion. This mode saves battery power and affords the player an opportunity to study all the possible moves in the actual gameplay.

The game begins with a short musical salute. The chef must move from one layer to another and jump on the various parts of the burgers in order to knock them onto the next lower level. Thumb control of the joystick is easy, although the movements of the little cooker are necessarily limited. While the one thumb controls the stick action,

the other is used to cover the pepper button, ready for the defense if necessary.

A word of warning: this game may become addictive. Although the limitations imposed in the name of miniaturization tend to foreshorten the game-play as it exists in other formats, this handheld version is no slouch in the action department.

A lot goes on here. First and second attempts to move the chef into working position are quickly followed by third and fourth. Soon, the player feels competent enough to go for broke. The intrigue turns to fascination, then obsession. Once this happens, there is no help for the lost. Some owners of this mini game have let others play with it only to lose all rights to it.

This small game is the best version of such a unit we've seen. The graphics are excellent, the action fast and constant, the elements of entertainment accounted for. Sound is good, and better than that, it's easily eliminated entirely. Nothing is missing.

Just one thing. This unit is arranged for the absolute convenience of the right handed person. Lefties will not have as good a time, due to the placement of the joystick and pepper button. But then, the same problem crops up in arcade versions all the time.

Tested for durability, playability, and entertainment value, BURGERTIME handheld came out a winner with our review crew. It will make a terrific gift, for your own special self or another, and once you have it, you'll never be alone again.

Dragon's Lair

Continued from page 37

game, not just moving a small computer blip on one panel—a microcomputed dot going all over a fixed maze and eating whatever happens to be in the path.

"What others currently pass off as full action, full animation games, are actually generated by computer. They just don't have the type of animation we're doing here."

Bluth and the companies associated with DRAGON'S LAIR, worry less about being first in the water. They are determined to tough it out and last longest in the marathon race. Companies in Japan as well as the U.S. are hot on the heels and coming on strong.

Still, the men from Bluth liken the

advent of DRAGON'S LAIR to the phenomenon of the first "talkie." It wasn't long after "The Jazz Singer" hit the screens before the silents hit the skids. So, what will these new animated laser disk games do to the old standby companies that have been producing video games for arcades?

"They're going to watch this new development *very* closely," says Pomeroy. "Don't misunderstand. They all have their own plans if this turns out to be a success—they're all developing laser disks on the side. I have no idea how successful their animation, per se, will be.

"West Coast electronic companies do have access to better animation film companies. Not many companies have been involved with full feature anima-

tion. It takes a unique type of thinking, of storytelling, to be able to do this kind of format."

This is pretty heady stuff. Bluth Animation has stated a goal of maximizing "everyone's enjoyment of video games. We've combined the unique capabilities of both computers and animation and formed a new style of entertainment—participatory movies. We've also opened doors to an entirely new realm of uses for character animation. We've married art and high technology.

"With DRAGON'S LAIR we've made a remarkable breakthrough in video game design, the aftershock of which will be felt throughout the entire game industry for a long time to come."

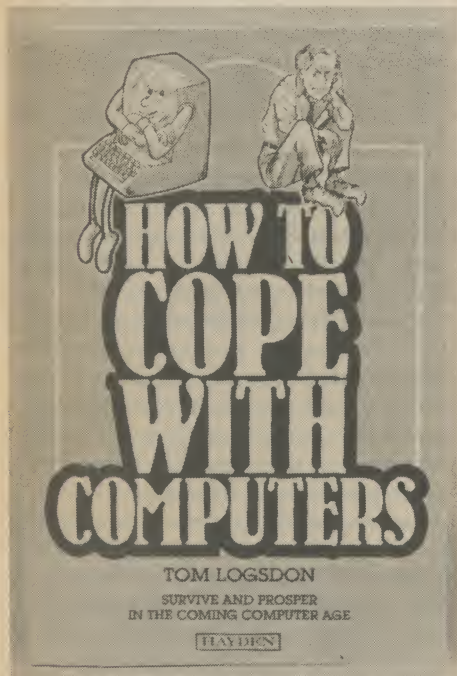
I couldn't have said it better—so I won't. ■

BOOK REVIEW

How to Cope With Computers, by Tom Logsdon, Hayden Book Company, Inc., Rochelle Park, New Jersey, 1982, softcover, 131 pages, \$7.95.

There are several good reasons why you should have this book. Probably your first consideration would be price, right? Well, the price is right. So is everything else about the book.

We are always impressed with computer-oriented authors who are able to deliver technological intricacies with a dollop of good humor added to the mix. Logsdon excels.



Apparently feeling this book stood strongly on its own merits, the author and publishing company dispensed with an introduction to the material and plunged right into the good stuff. There's a chapter that opens the book on the "Menace of Computers" that should be a standard text reprint for computer education centers the nation over.

That particular section of the book covers such intriguing items as Dehumanization and Electronic Privacy Intrusion; Computer Blunders; Ego Destruction by Computer; Fears of Unemployment; and, Keeping Your Cool in a Computerized World.

Or, there's the section about "Fighting Back." It includes such thought-provoking options as Calling the Computer Dirty Names; Hand Guns and Billy Clubs; Passive Resistance

Against Computers; and, Working the Computer to Death.

What a great combination of technological expertise, common sense and comedy. *How to Cope With Computers* will open your eyes and amuse you at the same time. Achieving literary competence in such a genre is tough at best. You're going to appreciate Logsdon all the more for making it look so easy.

There is no specific audience for this book. The novice with only a glancing familiarity with all things electronic, will find this book a treasure. It confirms all the doubts and worries the unsuspecting neophyte may or may not express but most certainly feels, then the author lays it all to rest.

Logsdon admits that computers can be a hassle; that they can, do and will undoubtedly malfunction; that they have been misused in the name of education, socialization, security and progress; that they do, indeed, replace people in many areas of the workforce; and that they can be the cause of substantial headaches.

However, even Logsdon admits there can be "joy" in computer ownership. This is several steps beyond the initial acknowledgement most experts use to taunt the unimpressed, which usually sounds something like, "Well, you'd better get used to it. They're here to stay."

The writing in this book is clear, concise and candid. The technological aspects are presented in a manner as easily understandable as the Sunday paper—and are a good deal more interesting. Peppered with anecdotes and factual historical notes, *How to Cope With Computers* is further enhanced by the addition of a full complement of illustrations, one on nearly every page.

None of this detracts in the least from the serious intent of the book: to equip consumers and computer operators with the techniques to "Survive and Prosper in the Coming Computer Age." After learning "Not to Worry" about computers, the reader is introduced to the "Innermost Secrets" of computers and learns all the basic computer concepts. From there, it's an exciting trip through hardware units and software, jargon, programming techniques, landing a job in the data processing industry, and buying and operating your own computer for any number of reasons, professional and personal.

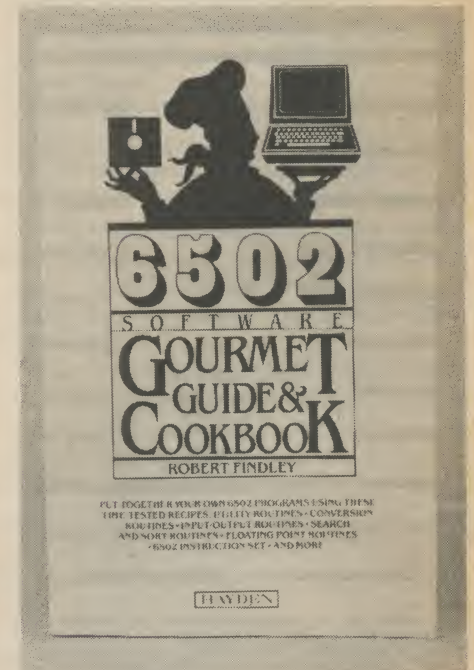
The further elucidation of the reader

is encouraged in a chapter listing suggested reading materials. The appendix contains an alphabetical listing of pertinent terminology and definitions.

For an unweighty, moderate-sized tome, *How to Cope With Computers* is a byte worth taking. Like a concentrated soup, it delivers in an amount more than double its original. A great job.

6502 Software Gourmet Guide & Cookbook, by Robert Findley, Hayden Books, Rochelle Park, New Jersey, 1979, softcover, 204 pages, \$12.95.

Dryness. Not for the unmotivated computer programmer, and most definitely not for the general consumer, this computer "cookbook" is designed to be used by the "cook."



The Foreword explains that the book is primarily intended for the person with a knowledge of machine-language programming, either using the 6502 as a central processing unit, or any one of a number of different CPUs (8080 or 6800).

The premise is that any individual with an introductory knowledge of computers will understand and appreciate this material, whether for the purpose of clarification or introduction. The intent is admirable. But, we do believe you'll need more than just an "introductory knowledge of computers" to either require or use this book.

Even the introductory notes to the

book establish pretty severe boundaries, after whetting the old appetite. "Before throwing together your favorite dish, a thorough knowledge of the basic ingredients, namely the 6502 instruction set, is essential."

The cookbook format notwithstanding, this is a general and rather ordinary book, solid and stolid. Chapters cover: the 6502 Instruction Set; 6502 Programming Techniques; General Purpose Routines; Conversion Routines; Floating Point Routines; Decimal Arithmetic Routines; Input/Output Processing; Search and Sort Routines.

All the information one needs for an indepth familiarity with the 6502 CPU is here, in written form. Don't look for pictures, or learning the easy way. The only illustrations for the material are periodic flow charts. The rest of the material is arranged in a quasi-recipe format.

One doubts the applicability of this particular book for anything less (or more) than a text. However, since the predictions so pointedly indicate the generalization of computer usage, it wouldn't hurt to be ready.

At the very least, this book helps you get the bugs out of programming with the 6502. If you have a hunger to know more about it, about its capabilities and idiosyncrasies, this is a fine book to have. Technologically sophisticated and journalistically rigid, this "Cookbook" will appeal to those with a secret desire to be a master chef of computers.

Introduction to Computer Animation, by Nat Wadsworth, Hayden Books, Rochelle Park, New Jersey, 1979, softcover, 75 pages, \$9.95.

This book grabs attention of computer users and video game enthusiasts, because it claims to be and actually is, a "step by step guide to drawing, creating shapes, animating figures and preparing charts, using the Apple, TRS-80 or PET microcomputers."

Great! As everyone in the know knows, the key to a game is the graphics. Being able to animate games for microcomputer use has always seemed to belong to another realm—a land where the average person dared not go. Now, more and more young people are learning to create computer generated animation and are making up their

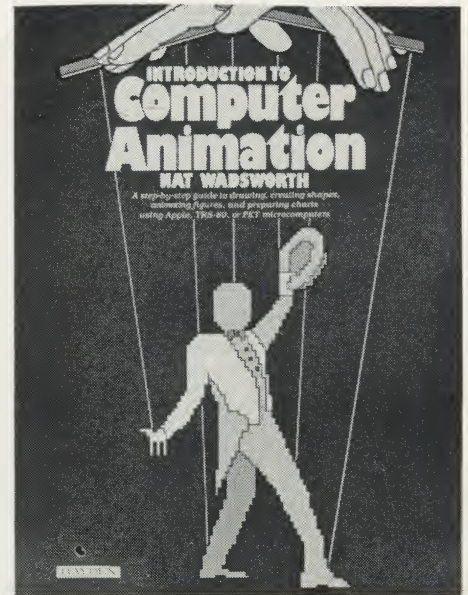
own credible software programs.

This book is small, in terms of number of pages, but it makes up for it by being bigger than the average paperback book, and by packing each page with the exact details of how to do what you want to do.

Originally published under the title, "Introduction to Low Resolution Graphics," this book was released just ahead of its time. The introduction laments the fact that not many people are using the capability of graphic representation on a visual computer mode. The purpose of the publication is to get users started "utilizing low resolution graphics as a means to liven up the interface between people and computing machines."

In that respect, the book is timely and specific. The author views the creative aspects of animation as an art form. He is convinced that individual talents can do much to enhance it. He is almost fervent about it.

The writing style is sparse and precise. The organization of the material is

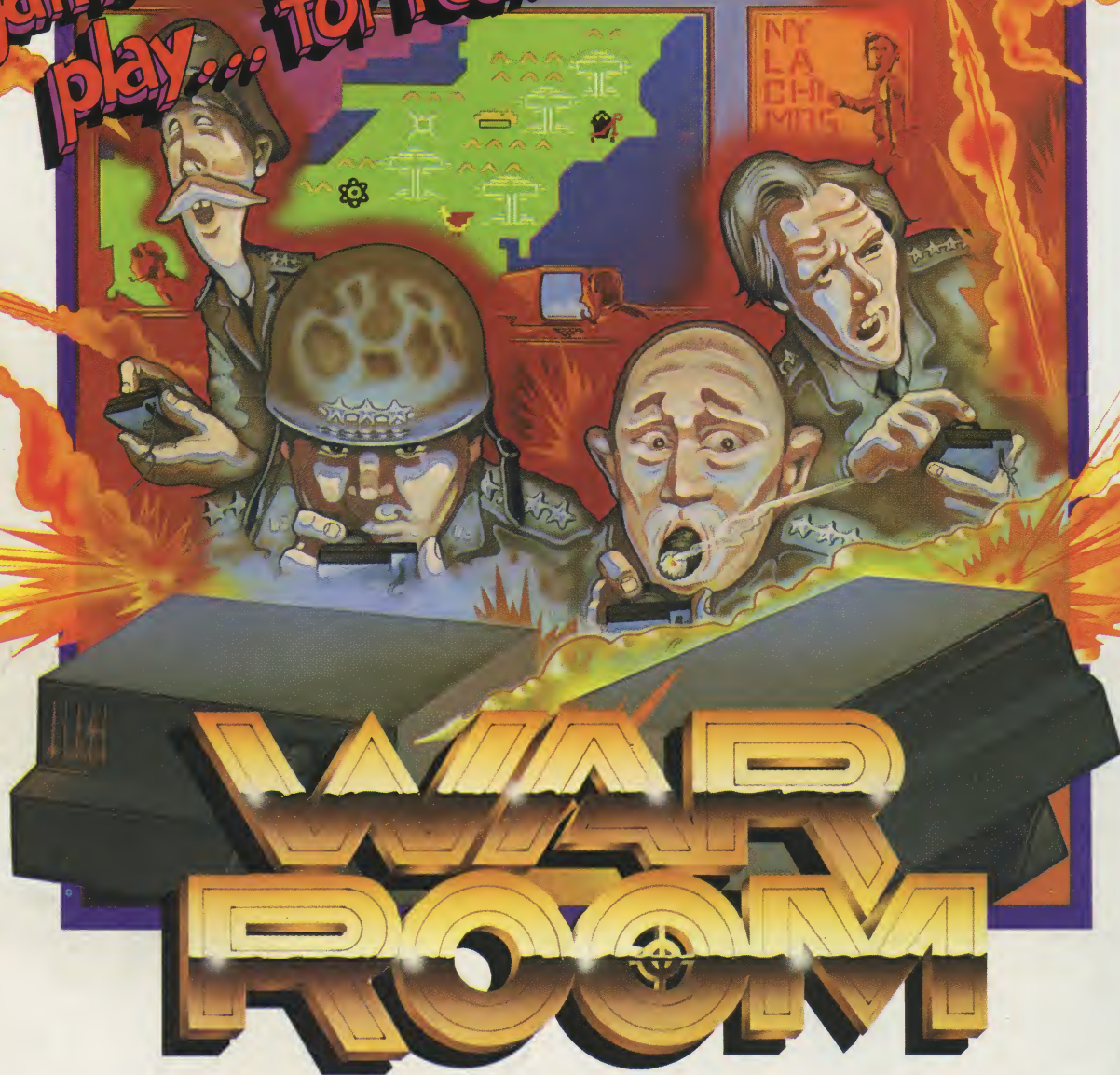


logical and progressive. There are no excesses in words or illustrations. A sound and credible instruction book, this one takes you where you want to go.

Look, Stanley . . .
you're only jousting a video game!



Play the
game the generals
play... for real.



Feel the goose bumps on your neck begin to rise as you take your seat in front of the video monitor. The situation pictured before your eyes is critical. Actual enemy nuclear attack on your most important cities and natural resources has begun.

Only *you* can determine the best strategic defense of the nation. Only *you* can effectively repel the enemy attack.

But the situation worsens. As you're attempting to rebuild your cities and keep production of goods and



services going, you pick up enemy spies lurking within your midst on your video close-up monitor. Can you effectively deal with them... even as more enemy missiles are approaching?

Your time is running out.

It's WAR ROOM. The new high-technology Probe 2000 strategy game for the ColecoVision™ game system. The game

that's so realistic, generals might even play it.

Isn't it time you tested your skills?

PROBE 2000

series

© 1983 N A P CONSUMER ELECTRONICS CORP.
ODYSSEY
A NORTH AMERICAN PHILIPS COMPANY

*COLECOVISION IS A TRADEMARK, OF COLECO INDUSTRIES, INC.